

STANDARDS DEVELOPMENT BRANCH OMIE



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# ONTARIO MINISTRY OF THE ENVIRONMENT

WASTE MANAGEMENT BRANCH

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## Old Waste Disposal Site Studies Phase II , Part I , Preliminary Investigation

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CENTRAL REGION

## FINAL REPORT

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# VOLUME 1

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GORE & STORRIE LIMITED  
CONSULTING ENGINEERS  
ESTABLISHED 1919  
MEMBER C.E.O.A.C.E.C.

1670 BAYVIEW AVENUE  
TORONTO, ONTARIO M4G 3G2  
TELEPHONE (416) 497-1351  
TELEX 06 23283



morrison beatty limited  
consulting engineers and hydrogeologists  
290 the west mall, etobicoke, ontario M9C 1C6 (416-622-9374)

November 6, 1980

Ministry of the Environment,  
Waste Management Branch,  
135 St. Clair Avenue West,  
2nd Floor,  
Toronto, Ontario.

Attn: Mr. Les Ficzero

Dear Sir:

re: Old Waste Disposal Sites  
- Central Region -  
Identification Study  
Phase II, Part I

We are pleased to submit our final report on our Phase II, Part I study of old waste disposal sites in Central Region. Twenty (20) copies of the report have been forwarded to your office for distribution.

During the study, we examined a total of 54 sites which dated from the 1920's to the 1970's. A map of the Central Region area showing the location of the sites is included at the end of the introductory section.

The report includes an introductory statement which summarizes our study methods and presents general conclusions on the overall study approach and findings. The results of each site investigation are presented in dossier form. This allows each one to be extracted from the master report for circulation to the appropriate municipalities. Each dossier includes a summary of the field investigation; the results of leachate and gas sampling; location maps, sketches and photographs; and recommendations which detail follow-up work that is required.

In summary, our investigation of the 54 old disposal sites indicates most of them were developed as a land reclamation scheme in an era when little attention was paid to environmental concerns. The disposal sites were frequently eroding ravines, wetlands, pits and quarries and floodplains. The pressures of urban development have forced construction of homes, schools, and factories in close proximity to, and sometimes on, the actual disposal sites.

The only impacts which could affect public health and safety were found to be leachate and methane gas production. Leachate was observed at only a few disposal sites and at these, contaminant loadings were very small. Methane was observed at most post-World War II disposal sites; however, in spite of a large number of homes and buildings constructed in close proximity to the sites, reports of gas leakage into buildings was only noted at 4 locations.

Methane gas was clearly the most significant impact identified in our study. Since methane migrates through the subsurface soils and is odourless, the only method of positive detection is by permanent gas probes. At sites where development has encroached on the landfill and the potential impact of methane could not be clearly identified we have recommended appropriate follow-up studies. These normally involve the installation of a limited number of gas probes and routine monitoring for at least one winter season.

Another significant finding of our study is the long-term liability that is associated with most disposal sites. Settlement, leachate production and gas generation can be expected to continue, in decreasing amounts, for decades. In view of such long-term impacts, we believe that all disposal sites should be identified in public records and that future land uses should be restricted. Recommendations to record and restrict the uses of each site are presented in the dossiers.

Mr. Les Ficzero  
Ministry of the Environment

- 3 -

November 6, 1980

We thank you for the opportunity to conduct these investigations.  
Should you require further clarification of any aspects of this report,  
we would be pleased to discuss them with you.

Respectfully Submitted,

GORE & STORRIE LIMITED



Ivan A. Sirman, P.Eng.

MORRISON BEATTY LIMITED



Brian W. Beatty, P.Eng.

bwb/ld



## TABLE OF CONTENTS

### LETTER OF TRANSMITTAL

### SUMMARY REPORT

|                                        | <u>Page</u> |
|----------------------------------------|-------------|
| 1.0 Summary                            | 1           |
| 2.0 Introduction                       | 4           |
| 3.0 Methodology                        | 5           |
| 4.0 Data Analysis and Reporting        | 8           |
| 5.0 Discussion of General Observations | 9           |

### DISPOSAL SITE DOSSIERS

#### METROPOLITAN TORONTO

##### Etobicoke

3052 The West Mall

##### Borough of North York

3060 Bluehaven Crescent

3061 Stanwood Crescent

3062 Storer Drive

3063 Torsyork & Weston Road

3064 Amesbury Park

##### Borough of York

Hickory Tree Site - Wilby Crescent

##### Borough of East York

- ✓ 3027 Leslie & Vanderhoof
- ✓ 3028 Cope land St & Commercial Road
- ✓ 3038 Gledhill & Holborne
- ✓ 3040 Lumsden & Eastdale
- ✓ 3041 Goodwood Park
- ✓ 3043 Park Vista & Dawes Road
- ✓ 3044 St. Clair & Woodbine
- ✓ 3045 St. Clair & Marilyn Crescent
- ✓ 3046 St. Clair & O'Connor
- ✓ 3048 O'Connor & Curity

##### Scarborough

3005 Ladybridge Drive

3006 McGregor Street

3009 Sinnot Road & Sherry St

3017 Kenworthy & Danforth

3019 Swanwick Ave & Victoria Park Drive

4011 Mornelle Court & Morningside

#### REGION OF HALTON

7045 Conc. 6, Lot 2, Milton

7048 Oakville

7054 Bayview Park, Burlington

7055 Kern's Road, Burlington

7059 McNabb Street, Georgetown

7060 Main Street, Georgetown

7062 Acton

Brian Best Park, Milton

#### REGION OF PEEL

7021 Palgrave

7024 Reg. Road #11, Caledon

7028 Centre Street, Brampton

7030 Centennial Community Centre, Brampton

7067 Dundas & Dixie, Mississauga

7069 Port Credit

7071 Newman Pit, Mississauga

#### REGION OF YORK

7006 Richmond Hill

7009 Oak Ridges

7015 Newmarket

#### REGION OF DURHAM

7077 Ajax

7108 Oshawa

7112 Port Perry

#### COUNTY OF VICTORIA

4019 Lindsay

#### COUNTY OF PETERBOROUGH

4021 Harper Road, Peterborough

4023 Peterborough Airport

#### COUNTY OF NORTHUMBERLAND

4017 Cobourg

#### COUNTY OF SIMCOE

4104 Barrie

4109 Cochrane & West, Orillia

4113 Alliston

4115 Collingwood

4128 Western & West, Orillia

#### DISTRICT OF MUSKOKA

4209 Huntsville

## 1.0 SUMMARY

### 1.1 BACKGROUND

This study is part of a four-phase program developed by the Ministry of the Environment to determine the public safety and environmental hazard potential of old waste disposal sites. The four phases are as follows:

- |                  |                                                                                      |
|------------------|--------------------------------------------------------------------------------------|
| Phase I          | - Identification of waste disposal sites                                             |
| Phase II, Part I | - Preliminary Investigation of waste disposal sites                                  |
| Part 2           | - Detailed Investigation of waste disposal sites                                     |
| Phase III        | - Resolution and rehabilitation of sites where environmental hazards exist           |
| Phase IV         | - Monitoring of specific sites after rehabilitation procedures have been implemented |

The Phase I study was carried out during the summer of 1979. This study produced an inventory of all known disposal sites in Central Region. The Ministry of the Environment selected 54 of the inventoried sites to be examined in greater detail for the Phase II program. This report presents the findings for Part I of the Phase II program.

### 1.2 STUDY OBJECTIVES AND RESULTS

The primary objective of the Part I program was to determine the presence of potential hazards at the old disposal sites which could be detrimental to public safety or the environment. Each site investigation was carried out in sufficient detail to determine whether further studies were required to ascertain the degree of impact. The Part I program provides an expert opinion of potential impacts based on a preliminary investigation at each site.

The site investigations comprised two areas of endeavor:

- i) water and methane monitoring and general data collection by qualified field teams, and
- ii) site inspections by experienced senior staff

The potential impacts and the recommendations that are presented for each site are based on the preliminary monitoring data and our experience with landfill impact studies throughout the Province.

Our investigation identified 41 sites that require further field studies to accurately define the potential impacts. With only one exception (site No. 3006 in Scarborough), development encroached on these disposal sites after completion. Thus, methane in these cases, becomes a hazard because of the approach of development.

In many cases, the exact "limits of fill" could not be accurately determined in the field. This was due to a general lack of records and the fact that the persons responsible for the disposal operations are no longer employed by the site owner or operator (usually the municipality). Determination of the fill limits will require shallow on-site augering, examination of old aerial photography, and review of soil investigation reports, where available.

### 1.3 CONCLUSIONS

The following general conclusions are based on an overview of the entire study. Site-specific details and recommendations based on these conclusions are presented separately in each site dossier.

The results of the overall study show that the preliminary indicator testing that was developed for the Part I program generally provides an adequate data base to ascertain the potential hazards at each site. The two-part approach for site investigations appears to be the most cost effective, considering the large number of sites to be examined.

Methane gas, generated by and emanating from old disposal sites, was identified as the greatest potential hazard to structures and subsequent land uses on and around the disposal sites.

Leachate is not a significant hazard at most old sites because of their relatively small size and the fact that leachate strengths decay with time.

Explosive concentrations of methane can be expected in all post-World War II disposal sites; however, it only becomes a hazard when development encroaches on the site.

The absence of detectable methane in most monitored buildings suggests that hazards to public safety are small; however, it is important to note that maximum methane migration occurs during the fall, winter and spring months when natural venting through the landfill cover is impeded by moisture and frost. The potential hazards can only be assessed under worst case conditions.

The design of on-site apartment complexes and large commercial buildings appears to be adequate to minimize methane hazards; however, the construction history of the building foundation would have to be reviewed to determine the adequacy of the design and the need for methane detection devices.

There are few permanent records of old disposal sites. In addition, there is no reliable mechanism by which purchasers of lands containing old disposal sites are informed of the existence of the landfill and the potential hazards. Municipal zoning by-laws generally do not restrict development on or abutting old disposal sites. The Ministry of the Environment restricts building on landfills for a period of 25 years after completion; however, in most cases, it was observed that methane generation does not decay to safe levels within this time span.



## 2.0 INTRODUCTION

In response to a request from the Ontario Ministry of the Environment, we have completed an impact assessment of all identified priority group No. 1 waste disposal sites within the Central Region. The objective of the study was to determine the public safety and environmental hazards of each site. The results of the investigation are presented in a dossier format for each site. Each dossier consists of a complete presentation of the field data, maps, study results and recommendations for the study site.

The priority group No. 1 sites which we studied are located as follows:

|                             |            |                                 |           |
|-----------------------------|------------|---------------------------------|-----------|
| <u>Metropolitan Toronto</u> |            | <u>Region of York</u>           | - 3 sites |
| Etobicoke                   | - 1 site   | <u>Region of York</u>           | - 3 sites |
| North York                  | - 5 sites  | <u>Region of Durham</u>         | - 3 sites |
| York                        | - 1 site   | <u>County of Victoria</u>       | - 1 site  |
| East York                   | - 10 sites | <u>County of Peterborough</u>   | - 2 sites |
| Scarborough                 | - 6 sites  | <u>County of Northumberland</u> | - 1 site  |
| <u>Region of Halton</u>     | - 8 sites  | <u>County of Simcoe</u>         | - 5 sites |
| <u>Region of Peel</u>       | - 7 sites  | <u>District of Muskoka</u>      | - 1 site  |

Total - 54 sites

The following is a brief summary of the terms of reference for the Part I study:

- investigate each site in sufficient detail to determine whether further intensive studies should be undertaken to ascertain if a hazard exists to public safety or the environment,
- sample all streams and wells within 100 m of the disposal site and analyze them for 5 key contaminant indicators,
- test for the presence of methane both in the disposal site and in buildings on (noted in the dossiers as "on-site") or adjacent the site,
- inspect the general condition of each site,
- evaluate the impact of leachate and methane on vegetation.

### 3.0 METHODOLOGY

#### A. BACKGROUND REVIEW

Prior to the field investigations some preparatory work was required to maximize our team's effectiveness in the field. This included procuring and tabulating all pertinent data for each site such as:

- relevant Ministry of the Environment and Municipal data and information;
- topographical maps and regional plans;
- aerial photographs showing the physical boundaries, drainage patterns and buffer zones;
- land titles information where readily available;
- information from various sources relative to geographical information, surficial geology, hydrogeology, surface drainage patterns, special terrain features, etc.

The background data was supplemented by personal interviews with municipal officials or persons with knowledge of each site.

#### B. FIELD INVESTIGATIONS

##### i) Preliminary Reconnaissance

Each site was inspected initially by special field teams from each firm. The area in and around the site was inspected to verify and supplement the compiled data from the interviews and, to examine the field conditions. The occurrence of leachate seepage, vegetational stress areas, ground settlement, utility services, buildings, and paved areas were noted in particular. The following site characteristics were reported:

leachate seepage - Leachate commonly seeps from above-ground and ravine fills where the water table mounds within the refuse. These seeps are evident by staining along water courses.

landfill settlement - The decomposition of organic waste converts the solid material to liquid and gases. This process causes settlement of the fill. The settlement usually results in a hummocky appearance on the landfill. Depressions and settlement cracks at the fill limits are often observed. Also, settlement of ground around buildings usually indicates the presence of fill material. Foundation and wall cracking is often evident in buildings constructed on non-compacted or decomposing fill. The extent of fill areas beneath streets and parking lots is generally very obvious because of the cracks which develop in the asphalt or concrete.

vegetation stress - During the growing season landfill gases normally vent to the atmosphere through the surface cover. In areas where the soil cover is thin or permeable (such as sand) the gas migration rate may be sufficient to displace oxygen from the root zone. This causes asphyxiation of the plant. Also, some landfill gases such as ethylene and hydrogen sulphide are phytotoxic. The occurrence of patchy, decaying vegetation and sterile soils indicate the presence of landfill gases. Such areas of vegetation stress are easily identified on disposal sites.

While the above factors provide good indicators of the fill areas, soil testing would be required for positive identification.

#### ii) Water Testing

There were no private or municipal water supply wells within 100 m of any of the investigated sites. All surface waters located within 100 m of the sites were sampled. Streams were sampled both upstream and downstream. Field analyses included: pH, conductivity, alkalinity, chloride and iron.

#### iii) Methane Testing

Methane was checked in the field with portable explosimeters. While these units determine the presence of total combustible gases, experience has shown that methane comprises over 95% of these gases. Consequently all results are reported as methane.

The procedure for determining the presence of methane in the disposal sites involved driving a small diameter steel bar to a depth of about one metre. The bar was then removed and the probe of the explosimeter immediately inserted and sealed into the open

barhole. A suction pressure is applied to the gas probe and gases encountered in the barhole are drawn into the meter. This method of methane detection proved satisfactory at all sites, except where a thick, clayey soil cover had been applied. Such cover material was usually moist. Moisture reduces the gas permeability of the soil so that methane will not vent through the cover.

Methane monitoring in buildings was carried out in the sub-surface levels. Obvious gas seepage points such as foundation cracks, floor drains, sump holes, open holes for service lines, etc, were monitored with the explosimeters.

v) Field Interviews

During the gas monitoring in buildings, the occupants were usually questioned regarding their knowledge of the disposal site. There was a general lack of factual knowledge of the disposal operations, however in several cases, valuable background information was solicited.

vi) Follow-up Site Inspections

Following an office review of all the collected data and field inspection reports by the senior staff of each firm, a final site inspection was carried out. Mr. Brian Beatty of Morrison Beatty Limited and Mr. Ivan Sirman of Gore & Storrie Limited carried out the follow-up site inspections. About 90% of all the sites were examined by these senior staff.

#### 4.0 DATA ANALYSIS AND REPORTING

The accumulated data from the preliminary interviews with municipal officials, field interviews and the field investigations was assembled for review by the senior staff of each firm. The assessments were summarized in a dossier format. For consistency, the following headings were used in each dossier:

1. Background - Waste disposal practices, original land uses, present development both on site and abutting, present site owner.
2. Hydrogeologic Setting - Geology, regional drainage
3. Disposal Site Detail - Fill characteristics, topography and drainage
4. Identified Impacts - Settlement and erosion, vegetation stress, leachate, methane gas
5. Potential Impact
6. Recommendations

After completion of the field investigations, it became apparent that leachate had no hazardous impact at any of the sites; methane, however was detected at many of the sites and presented a potential hazard to buildings located on or near the disposal site. Our over-all appraisal of the study resulted in a classification of sites into four categories.

- a) No hazard risk - This category usually applied to the oldest sites (i.e., pre-World War II) and isolated sites.
- b) Potential hazard risk - This category applies to landfills in the 10 to 25 age bracket where methane was not detected, but is expected to be produced. Limited follow-up work is recommended to confirm the extent of gas migration at these sites. Sites where leachate seepage was identified also fall into this category.
- c) Probable hazard risk - This category applies to sites where methane was detected in close proximity to buildings. Recommended studies are presented to identify the impacts.
- d) Definite hazard risk - This category applies to sites where seepage of methane into buildings was observed or reported. A special program involving frequent monitoring of the buildings is presented for such sites.

## 5.0 DISCUSSION OF GENERAL OBSERVATIONS

The following general observations of leachate and methane impacts were made during the course of our investigation:

Age of Site - It has been postulated that leachate and gas production decays slowly over a period of several decades. Our studies show that sites more than 25 years old produce significantly less leachate and gas than those which are younger than 15 years.

Refuse Composition - Sites comprised of ash, demolition rubble, and burned garbage produce insignificant methane compared to sites containing unburned domestic refuse. For this reason, we rarely found a significant impact at pre-World War II sites due to the lack of substantial organic wastes.

Site Topography - Most sites investigated had relatively flat surfaces which allows maximum infiltration. Although no correlation could be made, it is expected that sites with flat surfaces decompose more rapidly than steeply contoured sites; and accordingly, generate greater quantities of gas and leachate over a shorter time period.

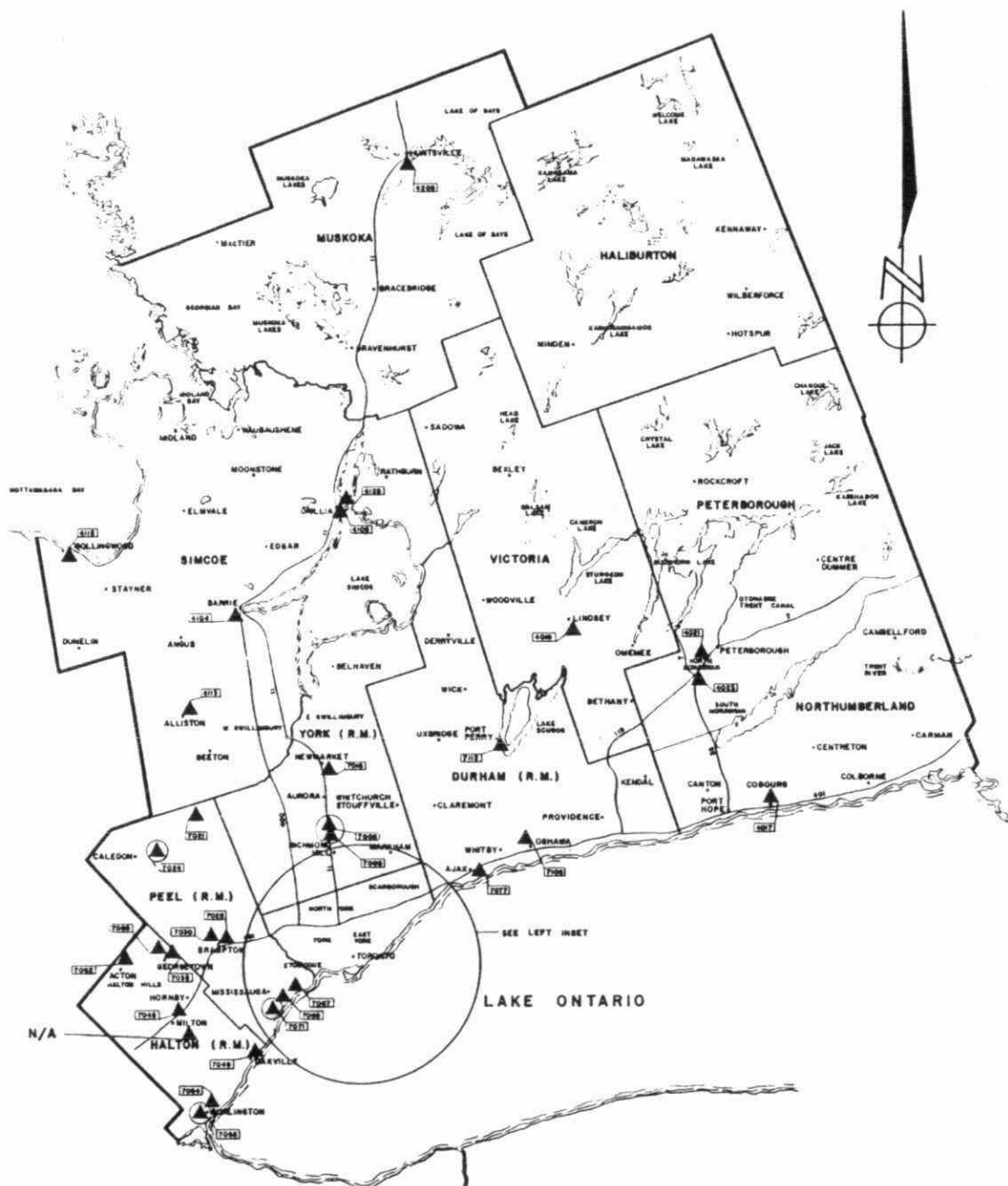
Hydrogeologic Setting - Sites were examined in gravel pits, limestone quarries, glacial lake deposits of sand, and glacial tills ranging from clay to silt. Off-site methane impacts were greatest at sites located in the most permeable deposits.

Climate - Since our complete investigation was carried out in September and October, no correlation could be made on the affects of climate on gas migration; however, it is well known that maximum off-site methane migration occurs when the ground surface is either saturated or frozen.

Research of leachate and gas production in landfills during the past decade has largely been carried out on new or recent landfills. This study has led to a better understanding of factors which affect the impact of older sites.

### LEGEND

- |      |   |               |                                          |
|------|---|---------------|------------------------------------------|
| 3005 | - | Scarborough   | Ladybridge Drive                         |
| 3006 | - | "             | McGregor Road                            |
| 3008 | - | "             | Sinnott Rd. and Eglinton Ave.            |
| 3017 | - | "             | Kenworthy and Danforth Ave.              |
| 3019 | - | "             | Swanwick and Victoria Park               |
| 3027 | - | East York     | Leslie and Vanderhoof                    |
| 3028 | - | "             | Copeland and Commercial                  |
| 3030 | - | "             | Gledhill and Hollburne (Cedarvale Park)  |
| 3040 | - | "             | Lumsden and Eastdale                     |
| 3041 | - | "             | Coodwood Park and Dawes Road             |
| 3043 | - | "             | Park Vista and Davies                    |
| 3044 | - | "             | St. Clair and Woodbine mts. Blvd.        |
| 3045 | - | "             | St. Clair and Marilyn                    |
| 3046 | - | "             | St. Clair and O'Connor                   |
| 3048 | - | "             | O'Connor and Curly                       |
| 3052 | - | Etobicoke     | The West Mall                            |
| 3060 | - | North York    | Bluehaven Crescent                       |
| 3061 | - | "             | Stanwood and Falconer                    |
| 3062 | - | "             | Storer Drive                             |
| 3063 | - | "             | Torvork and Weston                       |
| 3064 | - | "             | Amesbury Park                            |
| 4011 | - | Scarborough   | Morningside and Ellesmere                |
| 4017 | - | Coonourg      | Lake Street and Water Street             |
| 4019 | - | Lindsay       | Angeline and Pottinger                   |
| 4021 | - | Peterborough  | Harper Road                              |
| 4023 | - | "             | Peterborough Airport Nimonaghan Lwp.     |
| 4101 | - | Barrie        | Sandford and Brock Sts.                  |
| 4109 | - | Orillia       | Cochrane and West Sts.                   |
| 4113 | - | Alliston      | King Street and Victoria St. West        |
| 4115 | - | Collingwood   | Huron and Niagara                        |
| 4128 | - | Orillia       | West and King Sts.                       |
| 4209 | - | Huntsville    | A & P Parking Lot                        |
| 7006 | - | Richmond Hill | Centre Street and Pugsley                |
| 7009 | - | Oak Ridges    | King Side Road and Yonge Street          |
| 7015 | - | Newmarket     | Queen Street                             |
| 7021 | - | Palgrave      | No. 6 and No. 25 Side Roads              |
| 7024 | - | Caledon       | Regional Road No. 11 and No. 4 Side Road |
| 7028 | - | Brampton      | Center Street and Haslemere Avenue       |
| 7030 | - | "             | Mary and Guest Streets                   |
| 7045 | - | Milton        | Con. 6 Lot 2 Halton                      |
| 7048 | - | Oakville      | Sixteen Mile Creek (Oakville Creek)      |
| 7054 | - | Burlington    | Bayview Park and King's Road             |
| 7055 | - | "             | Kern's Road                              |
| 7059 | - | Georgetown    | Mill and McNabb Sts.                     |
| 7060 | - | "             | Main St. South and Mill Street           |
| 7062 | - | Acton         | Churchill Road                           |
| 7067 | - | Mississauga   | Pleasant View Farms, 1590 Dundas St.     |
| 7069 | - | "             | Lakeshore Road, Port Credit              |
| 7071 | - | "             | Spring Bank Rd. (Newman Site)            |
| 7077 | - | Ajax          | Lake Driveway and McClarnan Road         |
| 7108 | - | Oshawa        | Eastview Park                            |
| 7112 | - | Port Perry    | Scugog and Water Sts.                    |
| N/A  | - | York          | Weston Road and Wright (Hickory Tree)    |
| N/A  | - | Milton        | Brian Best Park                          |





METROPOLITAN TORONTO

ETOBICOKE

3052 THE WEST MALL

BOROUGH OF NORTH YORK

3060 BLUEHAVEN CRESCENT  
3061 STANWOOD CRESCENT  
3062 STORER DRIVE  
3063 TORYORK & WESTON ROAD  
3064 AMESBURY PARK

BOROUGH OF YORK

HICKORY TREE SITE - WILBY CRESCENT

BOROUGH OF EAST YORK

3027 LESLIE & VANDERHOOF  
3028 COPELAND ST & COMMERCIAL ROAD  
3038 GLEDHILL & HOLBORNE  
3040 LUMSDEN & EASTDALE  
3041 GOODWOOD PARK  
3043 PARK VISTA & DAWES ROAD  
3044 ST. CLAIR & WOODBINE  
3045 ST. CLAIR & MARILYN CRESCENT  
3046 ST. CLAIR & O'CONNOR  
3048 O'CONNOR & CURITY

SCARBOROUGH

3005 LADYBRIDGE DRIVE  
3006 MCGREGOR STREET  
3009 SINNOT ROAD & SHERRY ST  
3017 KENWORTHY & DANFORTH  
3019 SWANWICK AVE & VICTORIA PARK DRIVE  
4011 MORNELLE COURT & MORNINGSIDE





ETOBICOKE

3052

THE WEST MALL



Ontario

Ministry  
of the  
Environment

# OLD WASTE DISPOSAL SITE STUDY

Site Number... 3052

Location..... THE WEST MALL  
ETOBICOKE

Morrison Beatty Limited

Gore & Storrie Limited



Ontario

Ministry  
of the  
Environment

# OLD WASTE DISPOSAL SITE STUDY

SITE NO. 3052

LOCATION

The West Mall

Etobicoke

## Background

### Waste Disposal Practices

- Operated by the Borough of Etobicoke from 1963 to 1968.
- Wastes were from domestic sources and included metal objects.
- The landfill is approximately 3.5 m to 15 m thick with a cover of about 2 m.
- It covers an area of approximately 6 hectares and it's estimated that about three-quarter million cubic metres of material were placed in the site.
- Portions of the waste are exposed along the banks of the Etobicoke Creek.
- Information source was previous study by Morrison Beatty Limited.

### Land Uses

#### Original

- The site was originally a low lying area adjacent to Etobicoke Creek.

### Present Development

#### On - site

- For the most part the area is vacant, however, the fill extends beneath the West Mall Road at its southern limit.
- Curling rink on site.

#### Abutting

- North - Open land.
- East - Curling rink and industrial buildings.
- South - Industrial buildings.
- West - Etobicoke Creek.

### Present Site Owner

- Jakay Holdings Limited.
- Metropolitan Toronto and Region Conservation Authority.

Morrison Beatty Limited | Gore & Storrie Limited

## Hydrogeologic Setting

### Geology

- a thin deposit, of Lake Iroquois origin, occurs over most of the area; Dundas shale underlies the surficial sand
- recent river deposits of sand and silt may occur beneath the filled area

### Regional Drainage

- the site abuts the Etobicoke Creek
- all upland areas east of the fill are serviced by storm sewers

## Disposal Site Detail

### Fill Characteristics

- the fill has been deposited on a former floodplain of Etobicoke Creek
- previous test drilling by Warnock Hersey Professional Services Limited (1973 and 1975) showed the refuse thickness ranged from 3.5 to 7 m and the soil cover thickness ranged from 0.3 to 2.0 m
- the vegetative cover is grass and weeds and is rough-cut once or twice per year

### Topography and Drainage

- the surface of the fill is relatively flat over the entire site; the top of the fill blends in with the original top of the bank; a steep, 8 m high embankment parallels the Etobicoke Creek
- drainage on the surface of the site is only fair, due to the flat grade

## Identified Impact

### Settlement & Erosion

- irregular settlement has occurred in the paved parking lot under the curling rink which is built on the site and in pavement on portions of The West Mall that have been constructed on the fill
- toe erosion of the landfill on the cut bank meanders of Etobicoke Creek

### Vegetation Stress

- patches of decayed vegetation are especially evident at the southern end of the site and adjacent to the curling rink parking lot

### Leachate

- some leachate staining was observed at the points where the landfill forms part of the streambank
- there was no measureable impact on the water quality of Etobicoke Creek

### Methane Gas

- no methane gas was detected at the site; however, methane has been detected in deep gas probes installed during a previous investigation by Hydrology Consultants Limited
- no methane was detected in any of the monitored buildings

## Potential Impacts

- gas migration into the curling rink and the following commercial buildings: Dominion Stores, Fischback and Moore, The Electrolyser and Wilson's Truck Lines, all of which are located on or adjacent to the site
- further exposure of garbage along the banks of Etobicoke Creek due to river erosion on the cut bank meanders

## Recommendations

1. The disposal site and future uses should be permanently identified as follows:
  - (a) identify the "limits of fill" on the Official Plan,
  - (b) amend the Zoning By-law for the disposal site to restrict future uses,
  - (c) register a Notice on the title of the property with the Land Registrar which identifies the disposal site, the potential impacts and the restricted future uses,
  - (d) prohibit future residential development on the disposal site and a limited buffer zone around this site.
2. The Part II study should be carried out to assess the potential impacts. The study should include the following:
  - i) installation of multi-depth gas probes as set out in the Table below,
  - ii) monitoring of gas probes for methane concentration and ground and atmospheric air pressure every two weeks from November to May, and
  - iii) monitoring of methane gas in abutting buildings if the concentration in the ground outside the foundation exceeds 5% by volume.
3. The results of the monitoring program should be assessed to determine:
  - i) if monitoring can be terminated, in the event of no apparent hazard,
  - ii) if monitoring should be continued, in the event of an identified potential hazard,
  - iii) if permanent gas controls should be installed, in the event of a hazardous impact,
  - iv) minimum buffer zones for future development around the site.
4. The construction history of on-site and near-site buildings should be reviewed. The following should be examined:
  - i) soil investigation reports,
  - ii) reports of waste materials encountered during construction,
  - iii) plans of foundation design,
  - iv) details of special gas control systems, if any, and
  - v) details of gas monitoring program, if any.

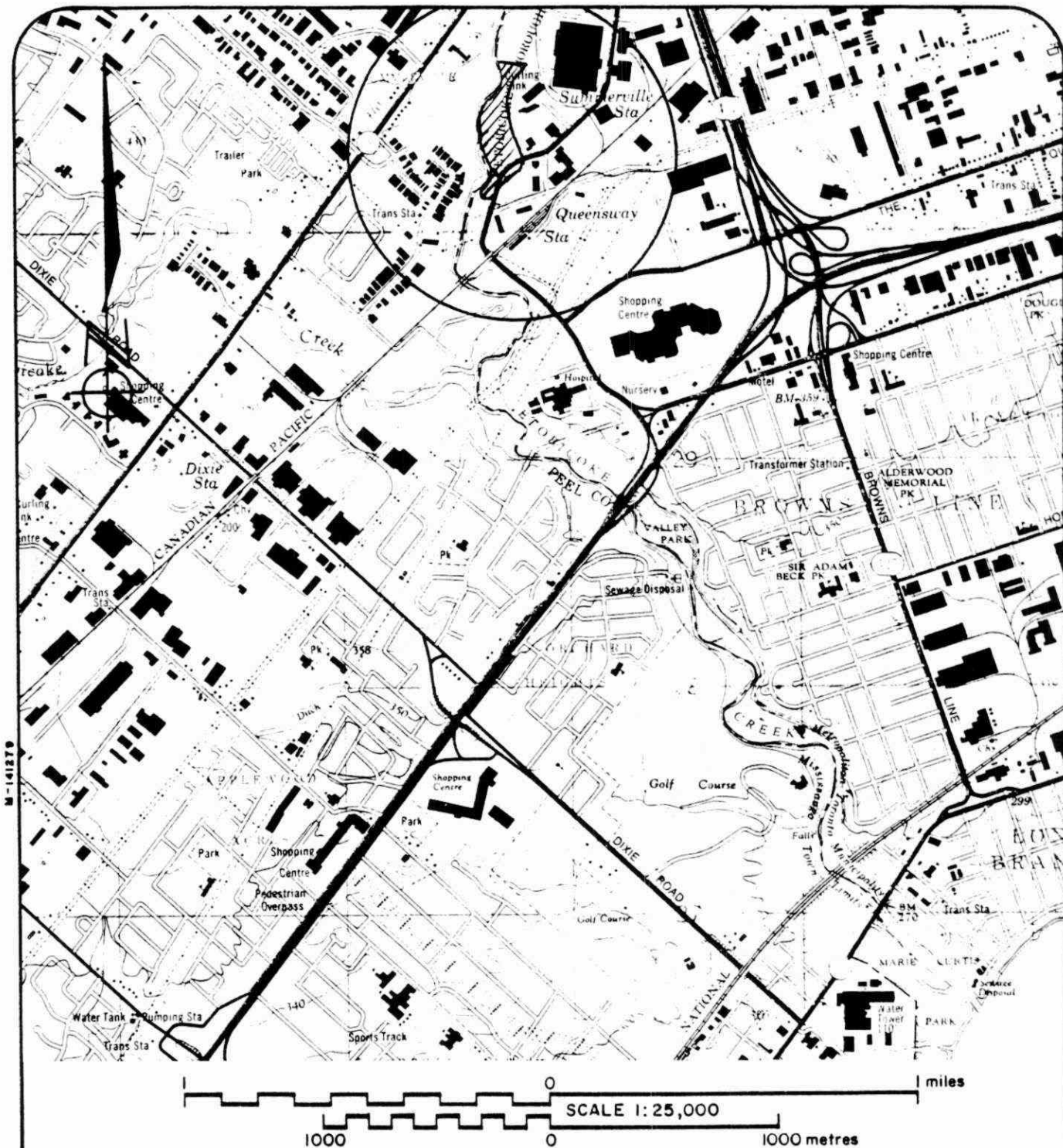
### LOCATION

### ESTIMATED NUMBER

- the vicinity of the foundations of Dominion Stores Warehouse, Fischback and Moore, The Electrolyser, Wilsons Truck Lines and the Curling rink

12



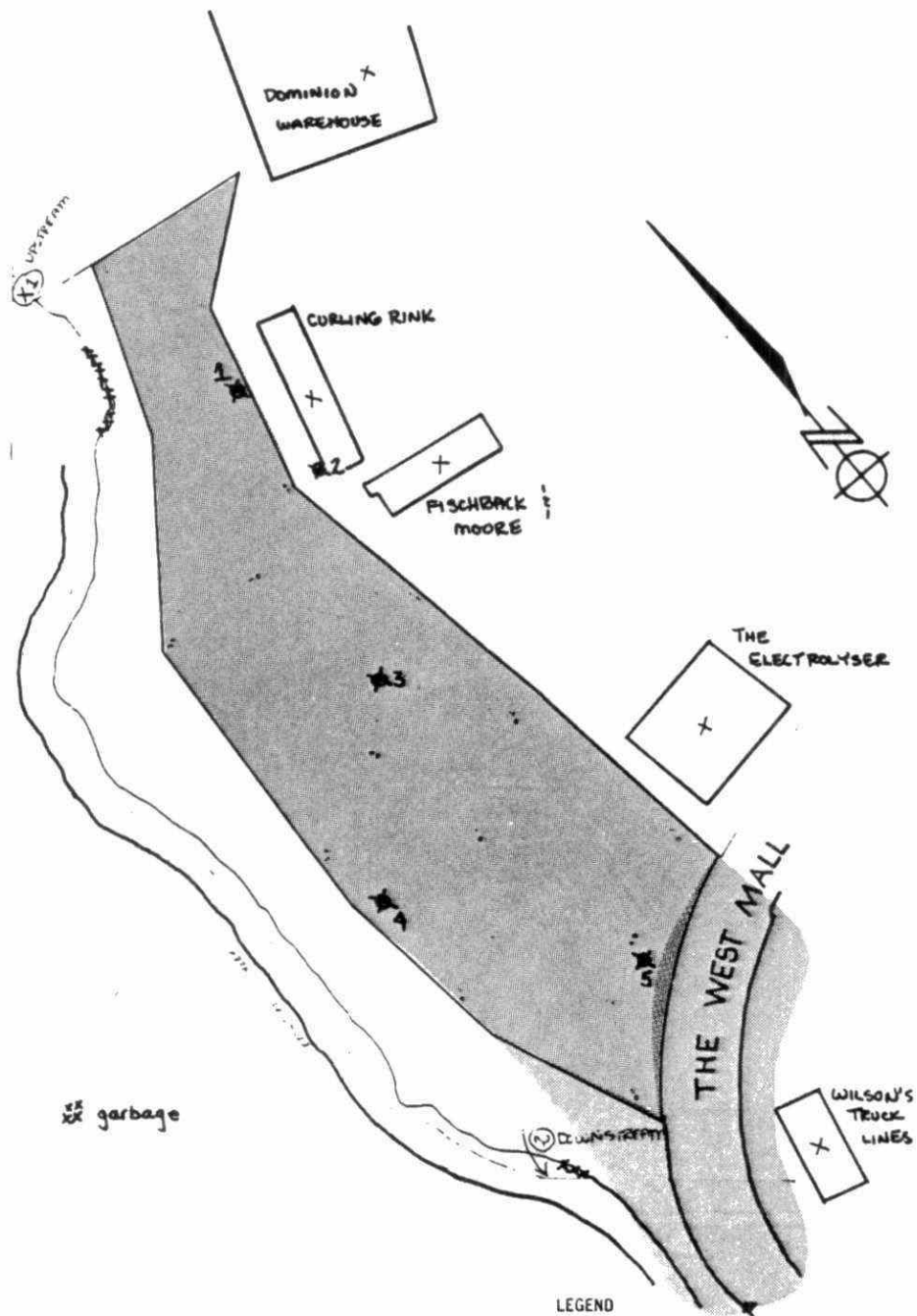


SITE NO. 3052  
ETOBICOKE

Morrison Beatty Limited  
Gore & Storrie Limited



M-250780



LEGEND

- |                        |                                                                                       |
|------------------------|---------------------------------------------------------------------------------------|
| WASTE DISPOSAL SITE    |  |
| WATER SAMPLE LOCATIONS | ①                                                                                     |
| GAS SAMPLE LOCATIONS   |                                                                                       |
| - in field             | ⊗ 2                                                                                   |
| - in buildings         | x 2                                                                                   |

NOT TO SCALE

SITE NO. 3052  
ETOBICOKE

Morrison Beatty Limited  
Gore & Storrie Limited



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# OLD WASTE DISPOSAL SITE STUDY

**SITE NO.**

3052



**Morrison Beatty Limited**  
**Gore & Storrie Limited**

DISPOSAL  
AREA



SCALE 1:6670





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Ontario

(To be completed in duplicate, 1 copy to MOE Regional office, 1 copy to MOE Head office)

FORM I  
(Site Identification Study)

### SITE INSPECTION

MOE REGION CENTRAL REGION DATE Sept. 29, 30, 1980 SITE IDENTIFICATION CODE 3052  
SITE West Mall Site, Etobicoke  
(Lot, concession #, or UTM coordinates, name, address)

#### ON-SITE TESTS

##### I Leachate

###### A. WATER BODIES WITHIN 100 METRES

| Parameter                  | mg/l | Results |     |   |   |   |   |   |   |   |    |
|----------------------------|------|---------|-----|---|---|---|---|---|---|---|----|
|                            |      | 1       | 2   | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1) Chlorides               |      | 153     | 153 |   |   |   |   |   |   |   |    |
| 2) pH                      |      | 7       | 7   |   |   |   |   |   |   |   |    |
| 3) Iron                    |      | .08     | .20 |   |   |   |   |   |   |   |    |
| 4) Alkalinity              |      | 154     | 120 |   |   |   |   |   |   |   |    |
| 5) Conductivity $\mu$ mhos |      | 500     | 550 |   |   |   |   |   |   |   |    |

###### B. WELLS WITHIN 100 METRES NONE

| Parameter           | Results |   |   |   |   |   |   |   |   |    |
|---------------------|---------|---|---|---|---|---|---|---|---|----|
|                     | 1       | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1) Chlorides        |         |   |   |   |   |   |   |   |   |    |
| 2) Dissolved solids |         |   |   |   |   |   |   |   |   |    |
| 3) Iron             |         |   |   |   |   |   |   |   |   |    |
| 4) Alkalinity       |         |   |   |   |   |   |   |   |   |    |
| 5) Conductivity     |         |   |   |   |   |   |   |   |   |    |

Any significant odour problems Yes \_\_\_\_\_ No X Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### LAB TESTS (2 LITRE SAMPLES)

Required, Yes \_\_\_\_\_ No X If Yes, complete Form II, Lab Analysis. If No, go to Part II, Gas.

##### II Gas

###### C. ON-SITE Sept. 3/80

###### D. BUILDINGS

| Test  | Results | Test  | Results | Name/Address               | Results | Name/Address          | Results |
|-------|---------|-------|---------|----------------------------|---------|-----------------------|---------|
| Holes |         | Holes |         |                            |         |                       |         |
| #1    | 0%      | #6    |         | 1. Curling Rink            | 0%      | 6. Dominion Warehouse | 0%      |
| #2    | 0%      | #7    |         | 2. Fischbach & Moore       | 0%      | 7. _____              |         |
| #3    | 0%      | #8    |         | 3. Electrolyzer Corp. Ltd. |         | 8. _____              |         |
| #4    | 0%      | #9    |         | 4. 122 The West Mall       | 0%      | 9. _____              |         |
| #5    | 0%      | #10   |         | 5. Wilson's Truck Line     |         | 10. _____             |         |

III General Comments (vegetation, leachate springs, depth, etc.) 111 The West Mall 0%  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(Detail all test point locations in a sketch on reverse side)

Form completed by: Nancy Rennie

B O R O U G H    O F    N O R T H    Y O R K

|      |                       |
|------|-----------------------|
| 3060 | BLUEHAVEN CRESCENT    |
| 3061 | STANWOOD CRESCENT     |
| 3062 | STORER DRIVE          |
| 3063 | TORYORK & WESTON ROAD |
| 3064 | AMESBURY PARK         |



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# OLD WASTE DISPOSAL SITE STUDY

Site Number... 3060

Location..... BLUEHAVEN CRESCENT  
BOROUGH OF NORTH YORK

Morrison Beatty Limited

Gore & Storrie Limited





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of the  
Environment

# OLD WASTE DISPOSAL SITE STUDY

SITE NO. 3060

LOCATION

Bluehaven Crescent

North York

## Background

### Waste Disposal Practices

- Operated by Inflammable Disposal Company Ltd. for the Borough of North York as a domestic and industrial waste disposal site.
- This site was used after the Amesbury site was closed in 1961 until about 1963 when the Finch-Ardwick site was opened.
- The site is an area of approximately 9 hectares.
- Information sources were Messrs. Jack Marlow, Bill Borough and John Nick, Works Department, City of North York.

### Land Uses

#### Original

- A portion of the Humber River flood plain.

### Present Development

#### On - site

- Parkland, a bocce-ball court, a soccerball field.
- A playground and school.
- A parking lot.

#### Abutting

- North - Residential buildings.
- East - Ravine depressions, residential building.
- South - Humber River.
- West - Residential buildings, Bluehaven Crescent.

### Present Site Owner

- Metro Toronto School Board.
- City of North York Parks Department.
- Metro Toronto and Region Conservation Authority.

## Hydrogeologic Setting

### Geology

- regionally, the area is blanketed by a silty clay ground moraine
- locally, there are recent deposits of silt, sand and gravel in the floodplains of the Humber River and in areas north of the site, the till is overlain by a thin deposit of varved clay and silt

### Regional Drainage

- site is located in a floodplain of the Humber River
- surrounding areas are serviced by storm sewers
- a tributary stream by-passes to the east of the site

## Disposal Site Detail

### Fill Characteristics

- the refuse is placed in a floodplain of the Humber River
- the refuse thickness averages about 6 m; however, it may be considerably thinner in the vicinity of Bluehaven Public School
- the by-law states that the refuse was to be compacted in one metre lifts

### Topography and Drainage

- the site slopes gently to the south and east
- relief on the surface of the fill is about 3 metres
- the by-law specifies one metre of clean compacted cover
- some exposed refuse was noted on the eastern outer slope of the fill
- a good quality grass cover is maintained for recreational uses

## Identified Impact

### Settlement & Erosion

- some minor erosion has occurred along the outer steep slopes of the fill
- subsidence depressions are evident over the entire site
- the paved parking lot shows significant settlement

### Vegetation Stress

- there are patchy areas of vegetation stress over much of the site

### Leachate

- there were no leachate seepage points observed along the toe of the landfill; however, an iron-stained seepage face was noted along the banks of the Humber River
- there was no measureable impact on the river quality

### Methane Gas

- methane was measured at several locations in the disposal site
- landfill gas odours were detected occasionally from areas of concentrated gas venting
- no gas was detected in any of the monitored homes or school

## Potential Impacts

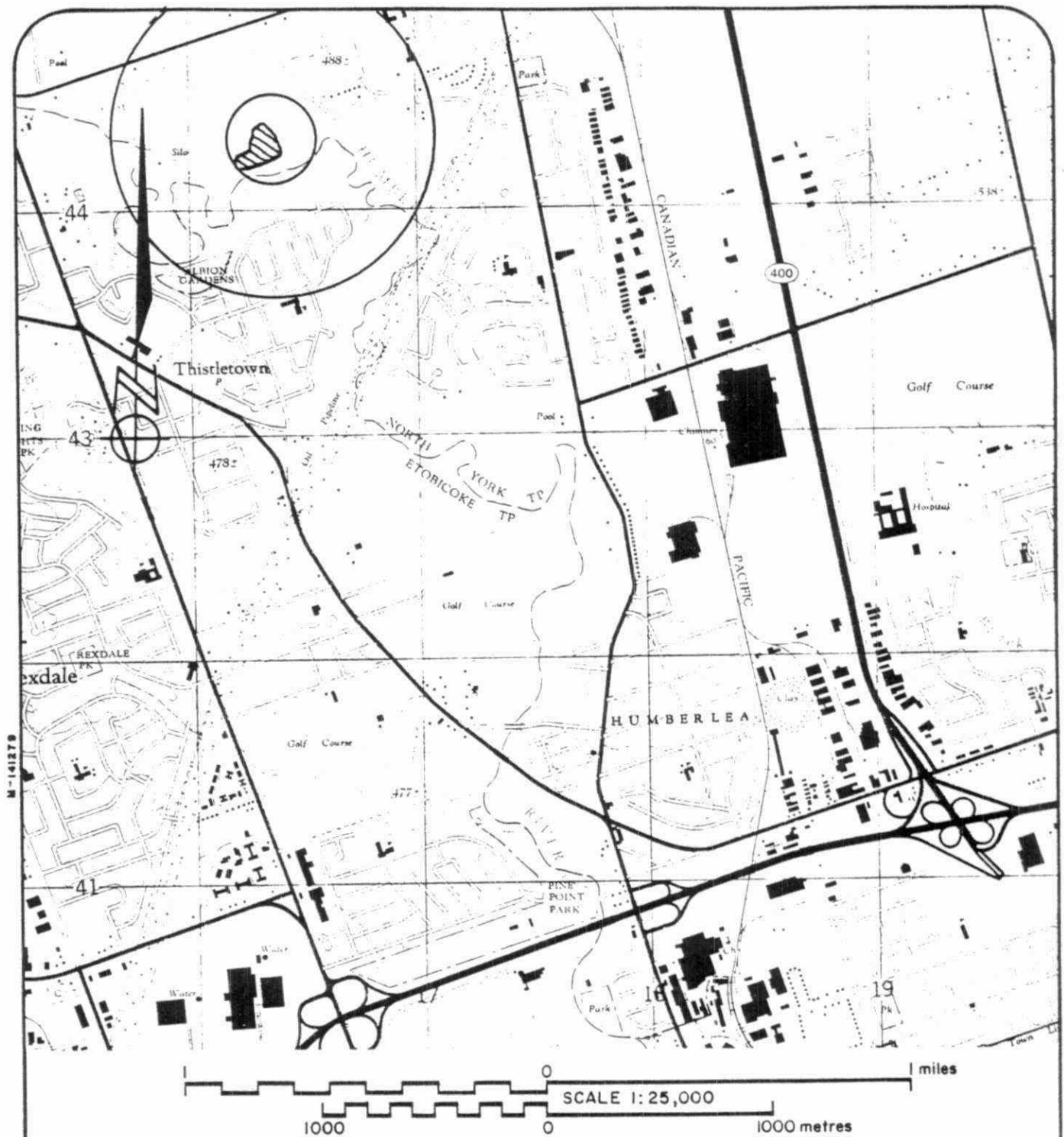
- gas migration into Bluehaven Public School which is built on or near the filled area
- gas migration via granular bedding beneath Bluehaven Cresc. to properties on the opposite side
- gas migration to abutting residences via sand lenses in till or granular bedding in service trenches



## Recommendations

1. The disposal site and future uses should be permanently identified as follows:
  - (a) identify the "limits of fill" on the Official Plan,
  - (b) amend the Zoning By-law for the disposal site to restrict future uses,
  - (c) register a Notice on the title of the property with the Land Registrar which identifies the disposal site, the potential impacts and the restricted future uses,
  - (d) prohibit future residential development on the disposal site and a limited buffer zone around this site.
2. The Part II study should be carried out to assess the potential impacts. The study should include the following:
  - i) installation of multi-depth gas probes as set out in the Table below,
  - ii) monitoring of gas probes for methane concentration and ground and atmospheric air pressure every two weeks from November to May, and
  - iii) monitoring of methane gas in abutting buildings if the concentration in the ground outside the foundation exceeds 5% by volume.
3. The results of the monitoring program should be assessed to determine:
  - i) if monitoring can be terminated, in the event of no apparent hazard,
  - ii) if monitoring should be continued, in the event of an identified potential hazard,
  - iii) if permanent gas controls should be installed, in the event of a hazardous impact,
  - iv) minimum buffer zones for future development around the site.
4. The construction history of on-site and near-site buildings should be reviewed. The following should be examined:
  - i) soil investigation reports,
  - ii) reports of waste materials encountered during construction,
  - iii) plans of foundation design,
  - iv) details of special gas control systems, if any, and
  - v) details of gas monitoring program, if any.
5. A comprehensive analysis of leachate collected from the identified seepage points should be conducted.

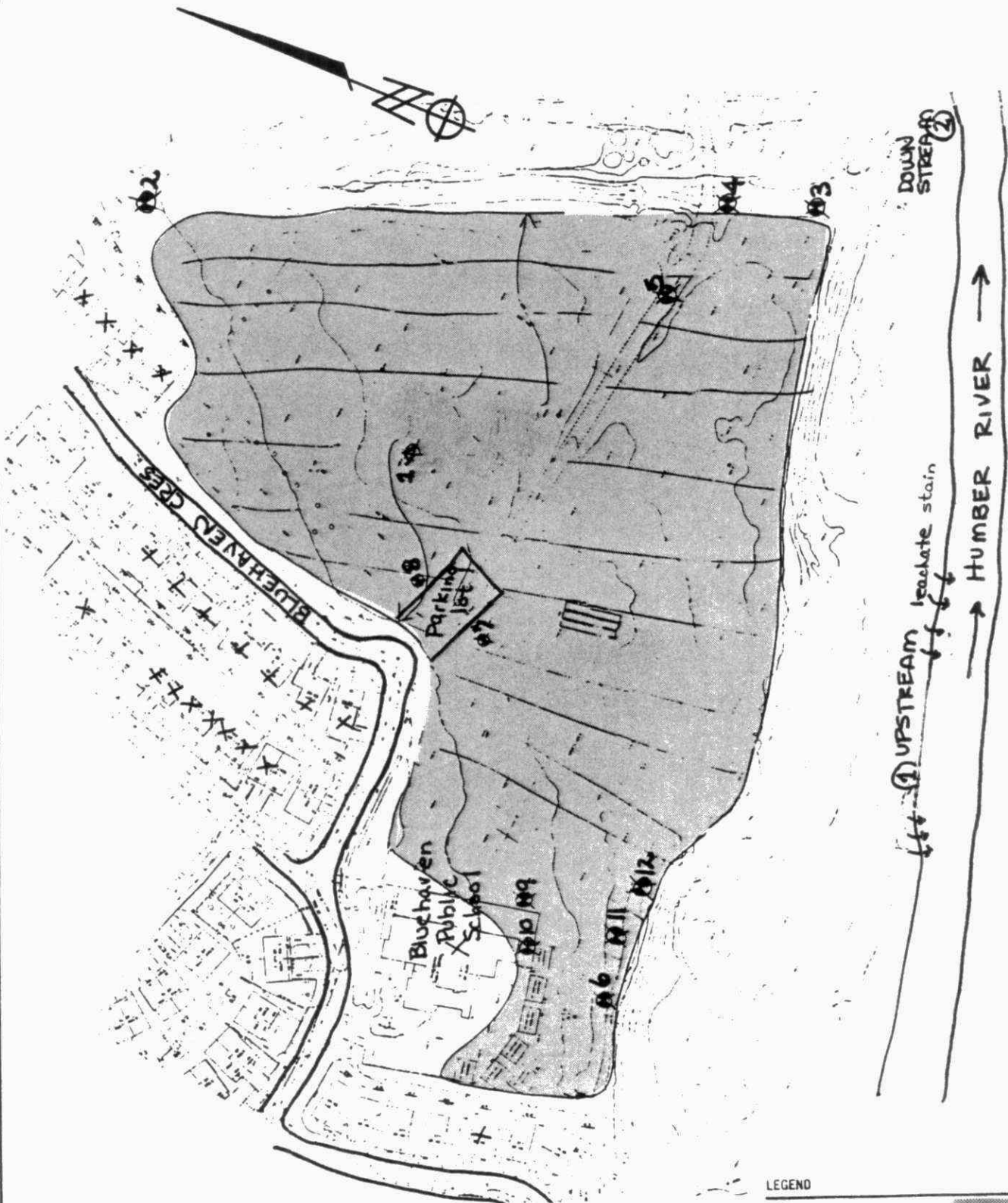
| <u>LOCATION</u>                                                           | <u>ESTIMATED<br/>NUMBER</u> |
|---------------------------------------------------------------------------|-----------------------------|
| - the vicinity of the foundation of<br>Bluehaven Public School            | 6                           |
| - the backyards of properties on the east<br>side of Bluehaven Crescent   | 5                           |
| - the front yards of properties on the west<br>side of Bluehaven Crescent | 10                          |
| - backyards of properties on Halvan Court<br>which abut the site          | 5                           |



SITE NO. 3060  
BLUEHAVEN Cres.

North  
York

Morrison Beatty Limited  
Gore & Storrie Limited



NOT TO SCALE

SITE NO. 3060  
BLUEHAVEN Cres.

North  
York

Morrison Beatty Limited  
Gore & Storrie Limited



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# OLD WASTE DISPOSAL SITE STUDY

**SITE NO.**

3060



**Morrison Beatty Limited**  
**Gore & Storrie Limited**

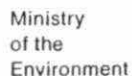
DISPOSAL  
AREA



SCALE 1:6670







FORM I  
(Site Identification Study)

MOE REGION CENTRAL REGION DATE Sept. 15, 16, 1980 SITE IDENTIFICATION CODE 3060  
SITE Bluehaven Cres., North York  
(Lot, concession #, or UTM coordinates, name, address)

I Leachate

## B. WELLS WITHIN 100 METRES

## Results

| Parameter             | mg/l | mg/l | mg/l | mg/l | mg/l | mg/l | mg/l | mg/l | mg/l | mg/l |
|-----------------------|------|------|------|------|------|------|------|------|------|------|
| 1) Chlorides          | 91.5 | 274  | 91.5 |      |      |      |      |      |      |      |
| 2) pH                 | 7    | 7    | 7    |      |      |      |      |      |      |      |
| 3) Iron               | .10  | .16  | .10  |      |      |      |      |      |      |      |
| 4) Alkalinity         | 240  | 257  | 240  |      |      |      |      |      |      |      |
| 5) Conductivity umhos | 420  | 1000 | 415  |      |      |      |      |      |      |      |

Parameter

## Results

[illegible]

| Any significant odour problems | Yes | X | No | Comments |
|--------------------------------|-----|---|----|----------|
|                                |     |   |    |          |

Required, Yes      No ☒      If Yes, complete Form II, Lab Analysis.      If No, go to Part II, Gas.

## II Gas

### C. ON-SITE

#### D. BUILDINGS

| Test Holes | Results | Test Holes | Results | Name/Address          | Results | Name/Address               | Results |
|------------|---------|------------|---------|-----------------------|---------|----------------------------|---------|
| #1         | 0%      | #6         | 6%      | 1. 27 Bluehaven Cres. | 0%      | 6. 39 Bluehaven Cres.      | 0%      |
| #2         | 0%      | #7         | 55%     | 2. 29 Bluehaven Cres. | 0%      | 7. Bluehaven Public School | 0%      |
| #3         | 43%     | #8         | 15%     | 3. 33 Bluehaven Cres. | 0%      | 8. 18 Islay Cres.          | 0%      |
| #4         | 0%      | #9         | 3%      | 4. 35 Bluehaven Cres. | 0%      | 9. 20 Islay Cres.          | 0%      |
| #5         | 1.2%    | #10        | 10%     | 5. 37 Bluehaven Cres. | 0%      | 10. 83 Ardwick             | 0%      |

III General Comments (vegetation, leachate springs, depth, etc.)

(Detail all test point locations in a sketch on reverse side)

Form completed by: Nancy Rennie



SITE INSPECTION

MOE REGION \_\_\_\_\_ DATE \_\_\_\_\_ SITE IDENTIFICATION CODE \_\_\_\_\_ 3060 - Page 2

SITE Bluehaven Cres. Con't  
(Lot, concession #, or UTM coordinates, name, address)

ON-SITE TESTS

I Leachate

A. WATER BODIES WITHIN 100 METRES

Parameter

Results

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

B. WELLS WITHIN 100 METRES

Parameter

Results

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

Any significant odour problems Yes \_\_\_\_\_ No \_\_\_\_\_ Comments \_\_\_\_\_

LAB TESTS (2 LITRE SAMPLES)

Required, Yes \_\_\_\_\_ No \_\_\_\_\_ If Yes, complete Form II, Lab Analysis. If No, go to Part II, Gas.

II Gas

C. ON-SITE

D. BUILDINGS

Test

Holes

Results

Test

Holes

Results

Name/Address

Results

Name/Address

Results

#1 8%  
#2 20%  
#3  
#4  
#5

#6  
#7  
#8  
#9  
#10

1.79 Ardwick (no admittance)  
2.81 Ardwick  
3.77 Ardwick  
4.73 Ardwick  
5.71 Ardwick

0%  
0%  
0%  
0%

6.4 Bluehaven  
7.30 Bluehaven  
8.32 Bluehaven  
9.20 Bluehaven  
10.22 Bluehaven  
24 Bluehaven

0%  
0%  
0%  
0%  
0%

III General Comments (vegetation, leachate springs, depth, etc.) \_\_\_\_\_

(Detail all test point locations in a sketch on reverse side)

Form completed by: Nancy Rennie



Ontario

Ministry  
of the  
Environment

# OLD WASTE DISPOSAL SITE STUDY

Site Number... 3061

Location..... STANWOOD CRESCENT  
BOROUGH OF NORTH YORK

Morrison Beatty Limited

Gore & Storrie Limited



Ontario

Ministry  
of the  
Environment

# OLD WASTE DISPOSAL SITE STUDY

SITE NO. 3061

LOCATION

Stanwood and Falconer

North York

## Background

### Waste Disposal Practices

- Operated for a very short period in July, 1966 for the purposes of restoring land slippage on a steep incline.
- Complaints of garbage dumping led to a quick discontinuance of the practice and mostly clean fill was dumped in the area.
- The area appears to be about one acre in size.
- Information sources were Messrs. Jack Marlow, Bill Borough, John Nick, Works Department, City of North York and local residents.

### Land Uses

#### Original

- Steep embankment on the flood plain of the Humber River.

### Present Development

#### On - site

- Open, vacant.
- No buildings due to the steep incline.
- Backyard of two properties on Stanwood Crescent.

#### Abutting

- North and East - Residential private homes.
- South and West - Humber River and associated lowlands.

### Present Site Owner

- Metropolitan Toronto and Region Conservation Authority.
- Private homeowners of Stanwood Crescent.

Morrison Beatty Limited | Gore & Storrie Limited



## Hydrogeologic Setting

### Geology

- regionally, the area is covered by a silty clay ground moraine,
- locally, the moraine is blanketed with a thin deposit of varved clay and silt

### Regional Drainage

- the site is in the Humber River watershed and abuts a tributary stream
- the upland areas are serviced by storm sewers

## Disposal Site Detail

### Fill Characteristics

- the fill was placed on a valley slope between elevation 127 and 144 m a.s.l. at the rear of 26 to 30 Stanwood Cresc.
- the fill is reported to be excavation spoil, construction rubble, brush, ashes, etc.
- no data was obtained on the fill thickness

### Topography and Drainage

- the slope of the fill ranges from about 1:4 to 1:3; relief on the site is about 17 m
- drainage on the site is excellent; a natural swamp occurs at the toe of the fill, along the tributary stream

## Identified Impact

### Settlement & Erosion

- no signs of erosion on the fill area
- some minor settlement depressions noted in two of the backyards that have been filled; however, there are no structural problems to the homes as they are not built on the filled area

### Vegetation Stress

- there were no signs of vegetation stress
- vegetative cover is grass, part of which is maintained by the property owners; they have also undertaken some tree planting on the site

### Leachate

- there was no leachate seepage observed
- there was no measureable impact on the water quality of the Humber River

### Methane Gas

- two barholes placed on the site produced no methane

## Potential Impacts

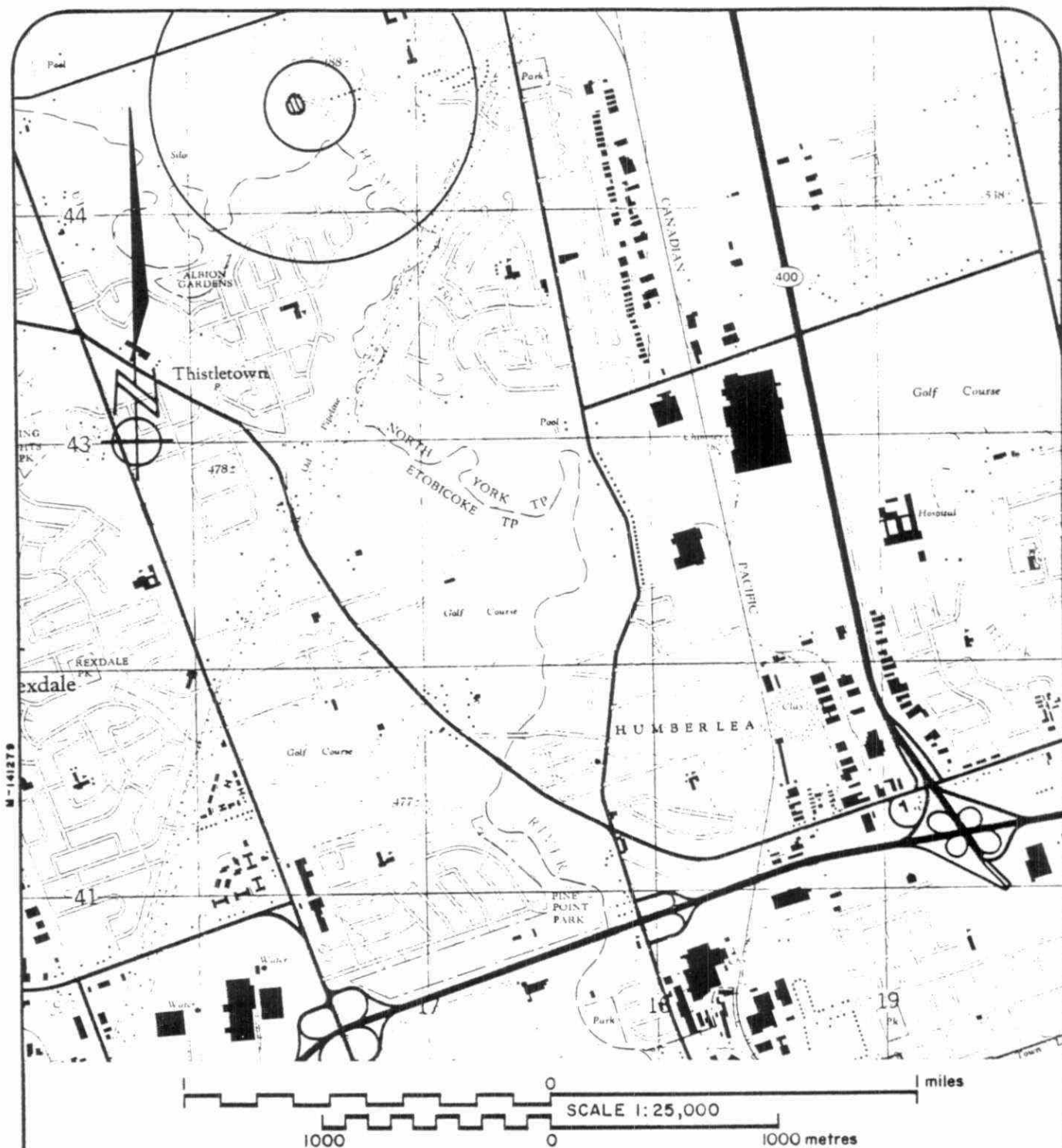
- if no organic wastes were disposed of at the site, there should be no impacts other than normal settlement problems
- if material such as brush, leaves, scrap wood, etc were disposed at the site, small quantities of methane gas would be generated

## Recommendations

1. The disposal site and future uses should be permanently identified as follows:
  - (a) identify the "limits of fill" on the Official Plan,
  - (b) amend the Zoning By-law for the disposal site to restrict future uses,
  - (c) register a Notice on the title of the property with the Land Registrar which identifies the disposal site, the potential impacts and the restricted future uses,
  - (d) prohibit future residential development on the disposal site and a limited buffer zone around this site.
2. The Part II study should be carried out to assess the potential impacts. The study should include the following:
  - i) installation of multi-depth gas probes as set out in the Table below,
  - ii) monitoring of gas probes for methane concentration and ground and atmospheric air pressure every two weeks from November to May, and
  - iii) monitoring of methane gas in abutting buildings if the concentration in the ground outside the foundation exceeds 5% by volume.
3. The results of the monitoring program should be assessed to determine:
  - i) if monitoring can be terminated, in the event of no apparent hazard,
  - ii) if monitoring should be continued, in the event of an identified potential hazard,
  - iii) if permanent gas controls should be installed, in the event of a hazardous impact, and
  - iv) minimum buffer zones for future development around the site.

M-141276

| <u>LOCATION</u>                                              | <u>ESTIMATED<br/>NUMBER</u> |
|--------------------------------------------------------------|-----------------------------|
| - in the backyards of the properties<br>on Stanwood Crescent | 3                           |

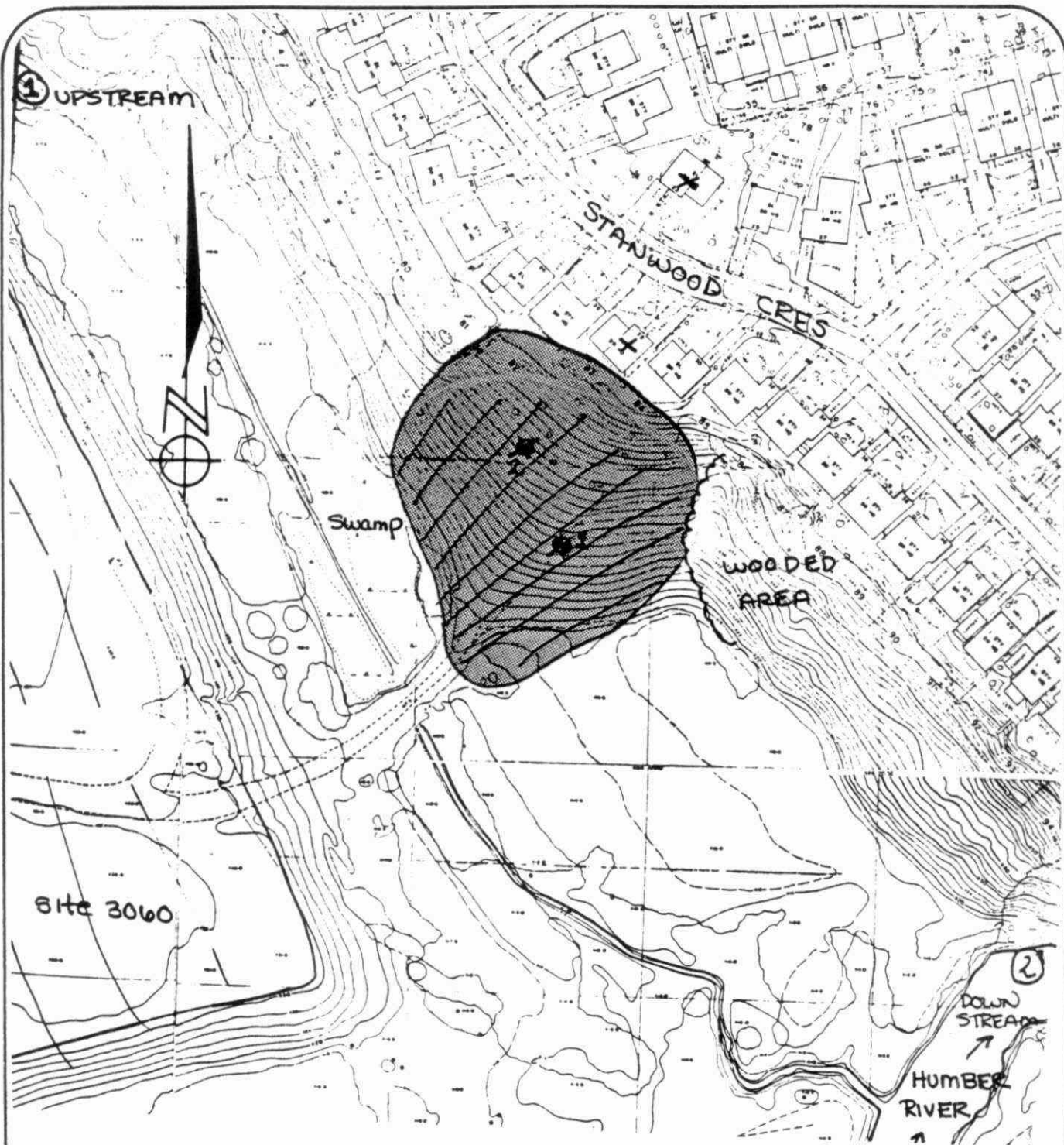


SITE NO. 3061  
STANWOOD Cres.

NORTH  
YORK

Morrison Beatty Limited  
Gore & Storrie Limited

M-221080



SITE NO. 3061  
STANWOOD Cres.

NORTH  
YORK

Morrison Beatty Limited  
Gore & Storrie Limited





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Environment

# OLD WASTE DISPOSAL SITE STUDY

SITE NO.

3061



Morrison Beatty Limited  
Gore & Storrie Limited

DISPOSAL  
AREA



SCALE 1:6670





Ministry  
of the  
Environment  
Ontario

(To be completed in duplicate, 1 copy to MOE Regional office, 1 copy to MOE Head office)

FORM I  
(Site Identification Study)

### SITE INSPECTION

MOE REGION CENTRAL REGION

DATE Sept. 16, 1980

SITE IDENTIFICATION CODE 3061

SITE Stanwood Cres., North York

(Lot, concession #, or UTM coordinates, name, address)

#### ON-SITE TESTS

##### I Leachate

###### A. WATER BODIES WITHIN 100 METRES

Parameter mg/l

Results

|                            | 1    | 2    | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------------------------|------|------|---|---|---|---|---|---|---|----|
| 1) Chlorides               | 275  | 91.5 |   |   |   |   |   |   |   |    |
| 2) pH                      | 7    | 7    |   |   |   |   |   |   |   |    |
| 3) Iron                    | 16   | 10   |   |   |   |   |   |   |   |    |
| 4) Alkalinity              | 257  | 240  |   |   |   |   |   |   |   |    |
| 5) Conductivity $\mu$ mhos | 1000 | 420  |   |   |   |   |   |   |   |    |

###### B. WELLS WITHIN 100 METRES

Parameter

Results

|                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---------------------|---|---|---|---|---|---|---|---|---|----|
| 1) Chlorides        |   |   |   |   |   |   |   |   |   |    |
| 2) Dissolved solids |   |   |   |   |   |   |   |   |   |    |
| 3) Iron             |   |   |   |   |   |   |   |   |   |    |
| 4) Alkalinity       |   |   |   |   |   |   |   |   |   |    |
| 5) Conductivity     |   |   |   |   |   |   |   |   |   |    |

Any significant odour problems Yes ☐ No ☒ Comments \_\_\_\_\_

#### LAB TESTS (2 LITRE SAMPLES)

Required, Yes ☐ No ☒ If Yes, complete Form II, Lab Analysis. If No, go to Part II, Gas.

##### II Gas

###### C. ON-SITE

Test

Holes

Results

|    |    |
|----|----|
| #1 | 0% |
| #2 | 0% |
| #3 |    |
| #4 |    |
| #5 |    |

Test

Holes

Results

|     |  |
|-----|--|
| #6  |  |
| #7  |  |
| #8  |  |
| #9  |  |
| #10 |  |

###### D. BUILDINGS

Name/Address

Results

|                                   |    |
|-----------------------------------|----|
| 1.23 Stanwood Cres.               | 0% |
| 2.24 Stanwood Cres.               | 0% |
| 3.30 Stanwood Cres. (no one home) |    |
| 4.32 Stanwood Cres. (no one home) |    |
| 5.34 Stanwood Cres. (no one home) |    |

Name/Address

Results

|                                   |  |
|-----------------------------------|--|
| 6.36 Stanwood Cres. (no one home) |  |
| 7.38 Stanwood Cres. (no one home) |  |
| 8.40 Stanwood Cres. (no one home) |  |
| 9.39 Stanwood Cres. (no one home) |  |
| 10. _____                         |  |

III General Comments (vegetation, leachate springs, depth, etc.) \_\_\_\_\_

(Detail all test point locations in a sketch on reverse side)

Form completed by: Nancy Rennie





Ontario

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of the  
Environment

# OLD WASTE DISPOSAL SITE STUDY

Site Number... 3062

Location..... STORER DRIVE  
BOROUGH OF NORTH YORK

Morrison Beatty Limited

Gore & Storrie Limited



Ontario

Ministry  
of the  
Environment

# OLD WASTE DISPOSAL SITE STUDY

SITE NO. 3062

LOCATION

Storer Drive

North York

## Background

### Waste Disposal Practices

- Operated by Inflammable Disposal Services Company Ltd. for the Borough of North York as a domestic and clean industrial wastes disposal site. It received an average of 200 loads/week.
- The site was opened after the Finch-Ardwick site was closed in 1961 and continued until 1967 when Metropolitan Toronto undertook responsibility for solid wastes disposal in the area.
- The area is roughly 2.5 hectares placed on a gradual slope towards the Humber River.
- Information sources include Messrs. Jack Marlow, Bill Borough and John Nick, Works Department, City of North York.

### Land Uses

- Original** - Steep embankment on the flood plain of the Humber River.

### Present Development

- On - site**
- Most of the site is vacant, undeveloped land which forms a sloped embankment for the Humber River.
  - Ten residences on Storer Drive have their backyards on the landfill.

- Abutting**
- North - Small ravine leading to the Humber River.
  - West - Humber River and associated lowlands.
  - East - Storer Drive and single family residences.
  - South - Open, undeveloped flood plain of the Humber River.

### Present Site Owner

- Privately owned by individual homeowners of Storer Drive.
- Metropolitan Toronto and Region Conservation Authority.

## Hydrogeologic Setting

### Geology

- the overburden geology is complex, with sand, varved clay and till deposits mapped at the site
- recent deposits of silt, sand and gravel occur in the Humber River floodplain

### Regional Drainage

- the site is located on a valley slope of the Humber River
- the upland areas are serviced by storm sewers

## Disposal Site Detail

### Fill Characteristics

- the refuse was placed between elevation 127 and 143 m a.s.l. on the valley slope at the rear of 51 to 67 Storer Drive and 108 Windhill Crescent
- the fill was placed within about 7 m of the residences and added useable backyards to the properties; finished backyard grades are about 3%
- the average refuse thickness is about 4 m

### Topography and Drainage

- the slope of the disposal site beyond the backyard of the abutting properties is about 1:8; relief on the site is about 16 m
- drainage on the site is excellent; a ravine and "dry" watercourse by-passes the site on the northwest

## Identified Impact

### Settlement & Erosion

- settlement cracks observed in backyards of homes abutting the site and over much of the fill area
- no significant erosion problem

### Vegetation Stress

- there are patchy areas of vegetation stress over much of the site; the vegetation is not maintained beyond the backyard properties
- lawns of ten homes backing onto fill have a line of dead vegetation marking top of fill area

### Leachate

- no leachate was observed
- lush vegetation growth 15 feet above the base of the fill site may indicate leachate seepage
- no measureable impact on the water quality of the Humber River

### Methane Gas

- methane was detected at many locations in the disposal site
- explosive concentrations of methane were detected in several backyards of properties abutting the site; however no methane was found in any of the monitored residences

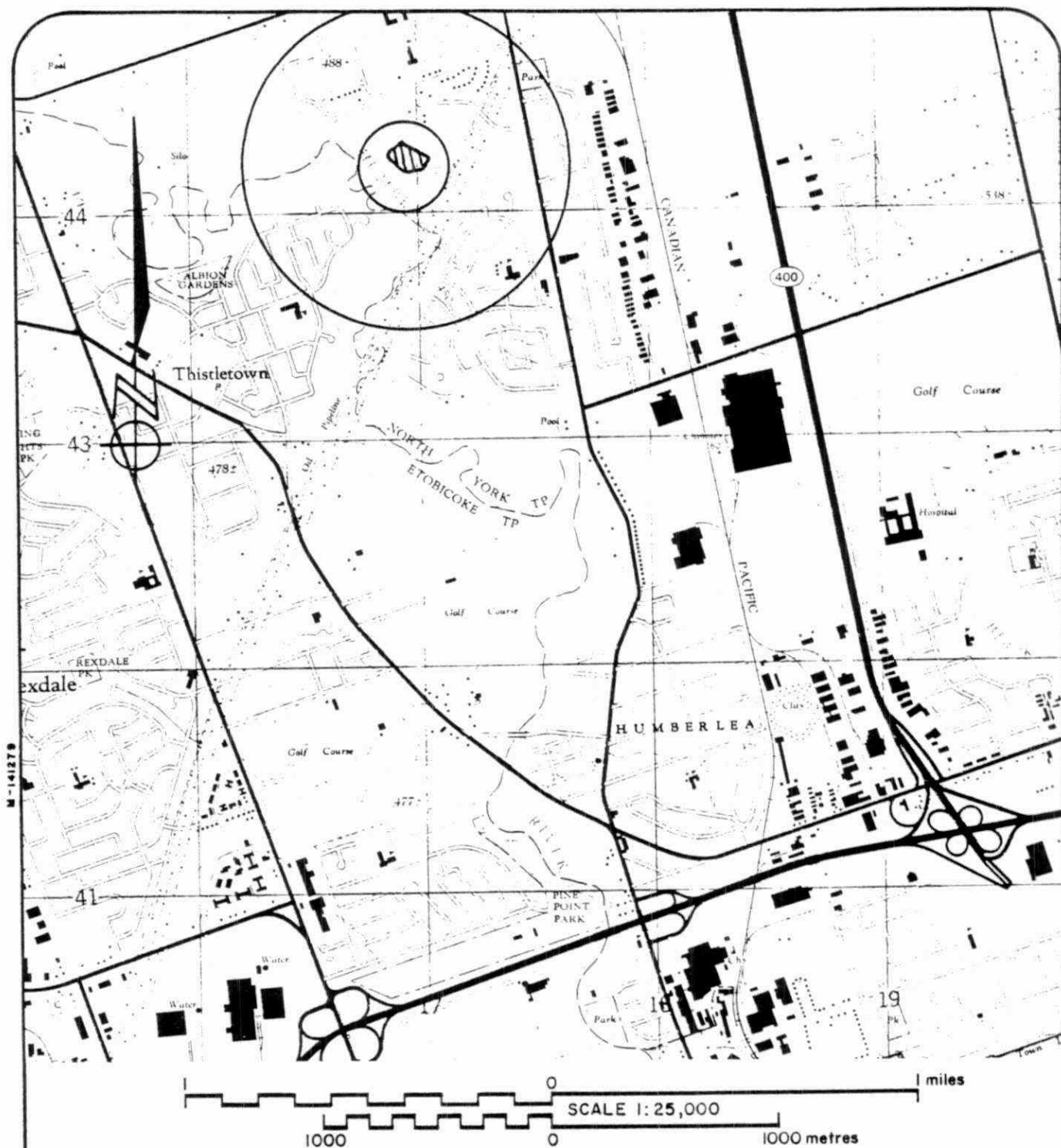
## Potential Impacts

- gas migration into abutting residences via sand lenses or deposits or granular bedding in service trenches

## Recommendations

1. The disposal site and future uses should be permanently identified as follows:
  - (a) identify the "limits of fill" on the Official Plan,
  - (b) amend the Zoning By-law for the disposal site to restrict future uses,
  - (c) register a Notice on the title of the property with the Land Registrar which identifies the disposal site, the potential impacts and the restricted future uses,
  - (d) prohibit future residential development on the disposal site and a limited buffer zone around this site.
2. The Part II study should be carried out to assess the potential impacts. The study should include the following:
  - i) installation of multi-depth gas probes as set out in the Table below,
  - ii) monitoring of gas probes for methane concentration and ground and atmospheric air pressure every two weeks from November to May, and
  - iii) monitoring of methane gas in abutting buildings if the concentration in the ground outside the foundation exceeds 5% by volume.
3. The results of the monitoring program should be assessed to determine:
  - i) if monitoring can be terminated, in the event of no apparent hazard,
  - ii) if monitoring should be continued, in the event of an identified potential hazard,
  - iii) if permanent gas controls should be installed, in the event of a hazardous impact, and
  - iv) minimum buffer zones for future development around the site.

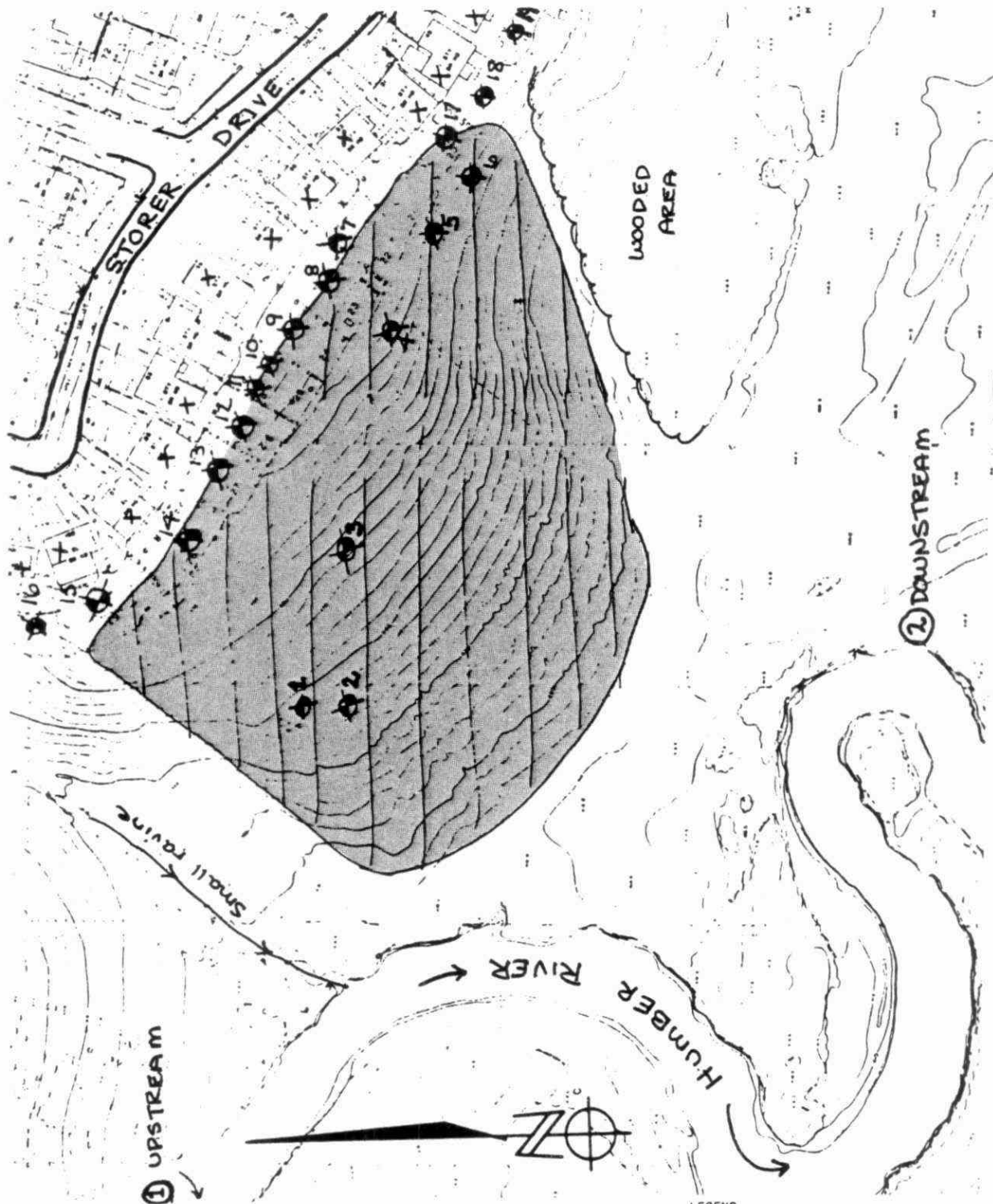
| <u>LOCATION</u>                                      | <u>ESTIMATED<br/>NUMBER</u> |
|------------------------------------------------------|-----------------------------|
| - in backyard properties of<br>51 to 67 Storer Drive | 9                           |
| - backyard property of<br>108 Windhill Crescent      | 1                           |



SITE NO. 3062  
STORER Dr. NORTH YORK

Morrison Beatty Limited  
Gore & Storrie Limited





LEGEND

WASTE DISPOSAL SITE

WATER SAMPLE LOCATIONS

GAS SAMPLE LOCATIONS

- in field

- in buildings

①

⊗<sup>2</sup>

x<sup>2</sup>

NOT TO SCALE

SITE NO. 3062  
STORER Dr. NORTH YORK

Morrison Beatty Limited  
Gore & Storrie Limited



Ontario

Ministry  
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Environment

# OLD WASTE DISPOSAL SITE STUDY

SITE NO.

3062



Morrison Beatty Limited  
Gore & Storrie Limited

DISPOSAL  
AREA



SCALE 1:6670





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(To be completed in duplicate, 1 copy to MOE Regional office, 1 copy to MOE Head office)

FORM I  
(Site Identification Study)

### SITE INSPECTION

MOE REGION CENTRAL REGION DATE Sept. 16, 1980 SITE IDENTIFICATION CODE 3062

SITE Storer Dr., North York  
(Lot, concession #, or UTM coordinates, name, address)

#### ON-SITE TESTS

##### I Leachate

###### A. WATER BODIES WITHIN 100 METRES

Parameter mg/l

Results

|                           | 1    | 2    | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---------------------------|------|------|---|---|---|---|---|---|---|----|
| 1) Chlorides              | 91.5 | 91.5 |   |   |   |   |   |   |   |    |
| 2) pH                     | 7    | 8    |   |   |   |   |   |   |   |    |
| 3) Iron                   | .10  | .06  |   |   |   |   |   |   |   |    |
| 4) Alkalinity             | 240  | 240  |   |   |   |   |   |   |   |    |
| 5) Conductivity $\mu$ hos | 420  | 415  |   |   |   |   |   |   |   |    |

###### B. WELLS WITHIN 100 METRES

Parameter

Results

|                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---------------------|---|---|---|---|---|---|---|---|---|----|
| 1) Chlorides        |   |   |   |   |   |   |   |   |   |    |
| 2) Dissolved solids |   |   |   |   |   |   |   |   |   |    |
| 3) Iron             |   |   |   |   |   |   |   |   |   |    |
| 4) Alkalinity       |   |   |   |   |   |   |   |   |   |    |
| 5) Conductivity     |   |   |   |   |   |   |   |   |   |    |

Any significant odour problems Yes ☐ No ☒ Comments \_\_\_\_\_

#### LAB TESTS (2 LITRE SAMPLES)

Required, Yes ☐ No ☒ If Yes, complete Form II, Lab Analysis. If No, go to Part II, Gas.

##### II Gas

###### C. ON-SITE

| Test  | Results | Test  | Results |
|-------|---------|-------|---------|
| Holes |         | Holes |         |
| #1    | 45%     | #6    | 0%      |
| #2    | 20%     | #7    | 0%      |
| #3    | 24%     | #8    | 15%     |
| #4    | 45%     | #9    | 35%     |
| #5    | 40%     | #10   | 11%     |

###### D. BUILDINGS

| Name/Address                    | Results | Name/Address           | *Backyards tested | Results |
|---------------------------------|---------|------------------------|-------------------|---------|
| 1. 59 Storer Dr.                | 0%      | 6.67 Storer Dr.        | *                 | 0%      |
| 2. 55 Storer Dr., (no one home) |         | 7.65 Storer Dr.        | *                 | 0%      |
| 3. 53 Storer Dr.                | 0%      | 8.63 Storer Dr.        | *                 | 0%      |
| 4. 51 Storer Dr.                | 0%      | 9.47 Storer Dr.        | *                 | 0%      |
| 5. 49 Storer Dr.                | 0%      | 10. 104 Windhill Cres. | *                 | 0%      |

III General Comments (vegetation, leachate springs, depth, etc.) \_\_\_\_\_

(Detail all test point locations in a sketch on reverse side)

Form completed by: Nancy Rennie



SITE INSPECTION

MOE REGION \_\_\_\_\_ DATE Sept. 17, 1980 SITE IDENTIFICATION CODE 3062 - Page 2

SITE Storer Dr., North York cont'd.  
(Lot, concession #, or UTM coordinates, name, address)

ON-SITE TESTS

I Leachate

A. WATER BODIES WITHIN 100 METRES

Parameter

Results

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

B. WELLS WITHIN 100 METRES

Parameter

Results

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

Any significant odour problems Yes \_\_\_\_\_ No \_\_\_\_\_ Comments \_\_\_\_\_

LAB TESTS (2 LITRE SAMPLES)

Required, Yes \_\_\_\_\_ No \_\_\_\_\_ If Yes, complete Form II, Lab Analysis. If No, go to Part II, Gas.

II Gas

C. ON-SITE

D. BUILDINGS

Test

Holes

Results

Test

Holes

Results

Name/Address

Results

Name/Address

Results

#1  
#2  
#3  
#4  
#5

0%  
45%  
52%  
0%  
0%

#6  
#7  
#8  
#9  
#10

0%  
0%  
0%  
0%  
0%

1. 106 Windhill Cres. \*  
2. 108 Windhill Cres. \*  
3.  
4.  
5.

0%  
0%

6.  
7.  
8.  
9.  
10.

III General Comments (vegetation, leachate springs, depth, etc.) \_\_\_\_\_

(Detail all test point locations in a sketch on reverse side)

Form completed by: Nancy Bennie





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# OLD WASTE DISPOSAL SITE STUDY

Site Number... 3063

Location..... TORYORK & WESTON ROAD  
BOROUGH OF NORTH YORK

Morrison Beatty Limited

Gore & Storrie Limited



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of the  
Environment

# OLD WASTE DISPOSAL SITE STUDY

SITE NO. 3063  
LOCATION Toryork  
and Weston Road  
North York

## Background

### Waste Disposal Practices

- Operated by Inflammable Disposal Company Ltd. for the Borough of North York as a domestic waste disposal site.
- The site was started in 1961 and used until 1967 when Metro Toronto took responsibility for solid waste disposal for North York.
- The site covers Blocks 1 and 2 of Plan 5936.
- The site covers an area of approximately 3 hectares.
- Information sources included Messrs. Jack Marlow, Bill Borough and John Nick, Works Department, City of North York.

### Land Uses

#### Original

- A low lying valley or ravine that discharged into the Humber River flood plain.

### Present Development

#### On - site

- The site is mostly vacant.
- The gravel parking lot adjacent to the Bank of Nova Scotia.
- A small surface drainage ditch.
- A storm sewer traverses the site.

#### Abutting

- North - CP railway line.
- East - Weston Road, Scotia Bank and associated gravel parking lot.
- South - Commercial buildings, North York storage yards.
- West - Hydro Electric Commission building of the City of North York.

### Present Site Owner

- Block 1 - Plan #5936 is owned by Tony's Industrial Catering Ltd. It is leased to the Bank of Nova Scotia.
- Block 2 - Plan #5936 is owned by the Hydro Electric Commission of the City of North York.



## Hydrogeologic Setting

### Geology

- the site is within an area of deep water deposits of silt and varved clay

### Regional Drainage

- within the watershed of the Humber River
- site itself and surrounding areas are serviced by storm sewers

## Disposal Site Detail

### Fill Characteristics

- fill was composed of industrial waste with some domestic waste
- the fill was placed in a ravine which traversed the site between the CP railway and Toryork Road
- the fill limit on the southern boundary (adjacent the Bank parking lot) was the 150 m a.s.l. contour line
- the deepest fill, along the centre of the ravine, is about 7 m

### Topography and Drainage

- the fill surface slopes gently to the southwest
- site is serviced by a 137 cm diameter storm sewer which passes through it along the old ravine
- there is an area of poor drainage in the north-central portion of the site where a swampy area exists; a shallow watercourse has been constructed to partially drain this area

## Identified Impact

### Settlement & Erosion

- several settlement depressions are evident in the fill area
- there is no erosion problem at this site

### Vegetation Stress

- much of the southeastern portion of the site has patches of decayed vegetation caused by the presence of landfill gases
- the vegetation is rough-cut and weeds are controlled

### Leachate

- there was no evidence of leachate at the site

### Methane Gas

- methane concentrations of up to 50% were found on the southern part of the site near the parking lot area
- no methane was found in the northwestern portion of the site, where the water table is near-surface

## Potential Impacts

- gas migration into Bank of Nova Scotia via the granular bedding beneath the paved parking lot
- gas migration via granular bedding beneath Toryork Road to the properties on the opposite side

## Recommendations

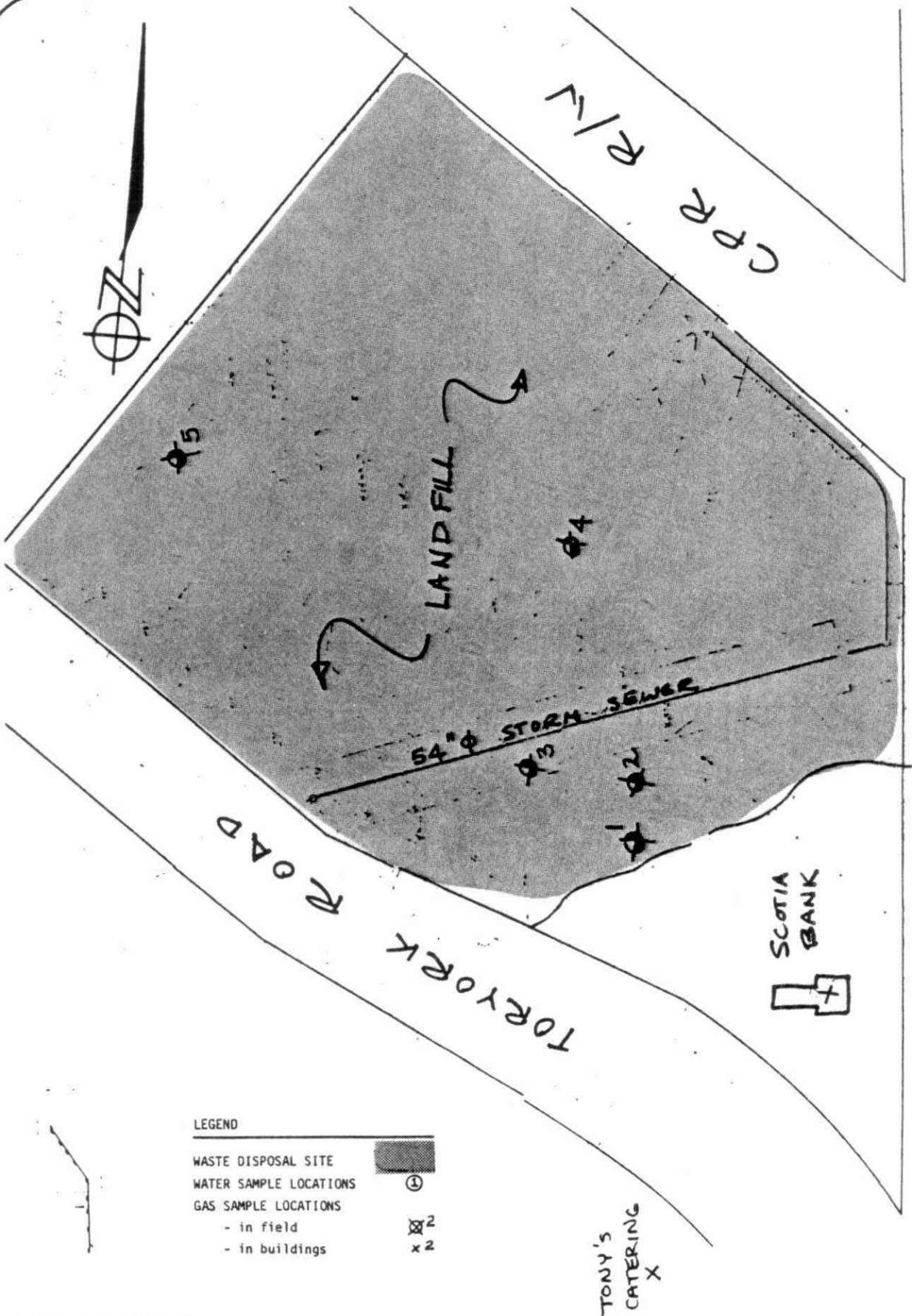
1. The disposal site and future uses should be permanently identified as follows:
  - (a) identify the "limits of fill" on the Official Plan,
  - (b) amend the Zoning By-law for the disposal site to restrict future uses,
  - (c) register a Notice on the title of the property with the Land Registrar which identifies the disposal site, the potential impacts and the restricted future uses,
  - (d) prohibit future residential development on the disposal site and a limited buffer zone around this site.
2. The Part II study should be carried out to assess the potential impacts. The study should include the following:
  - i) installation of multi-depth gas probes as set out in the Table below,
  - ii) monitoring of gas probes for methane concentration and ground and atmospheric air pressure every two weeks from November to May, and
  - iii) monitoring of methane gas in abutting buildings if the concentration in the ground outside the foundation exceeds 5% by volume.
3. The results of the monitoring program should be assessed to determine:
  - i) if monitoring can be terminated, in the event of no apparent hazard,
  - ii) if monitoring should be continued, in the event of an identified potential hazard,
  - iii) if permanent gas controls should be installed, in the event of a hazardous impact, and
  - iv) minimum buffer zones for future development around the site.

| <u>LOCATION</u>                                                            | <u>ESTIMATED<br/>NUMBER</u> |
|----------------------------------------------------------------------------|-----------------------------|
| - in the parking lot area between the landfill and the Bank of Nova Scotia | 2                           |
| - between the fill and the North York Hydro building                       | 2                           |
| - in the area in front of the commercial building at 23 TorYork Road       | 2                           |



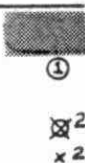
SITE NO. 3063  
TORYORK RD. NORTH YORK

Morrison Beatty Limited  
Gore & Storrie Limited



LEGEND

- WASTE DISPOSAL SITE
- WATER SAMPLE LOCATIONS
- GAS SAMPLE LOCATIONS
  - in field
  - in buildings



NOT TO SCALE

SITE NO. 3063  
TORYORK RD. NORTH YORK

Morrison Beatty Limited  
Gore & Storrie Limited





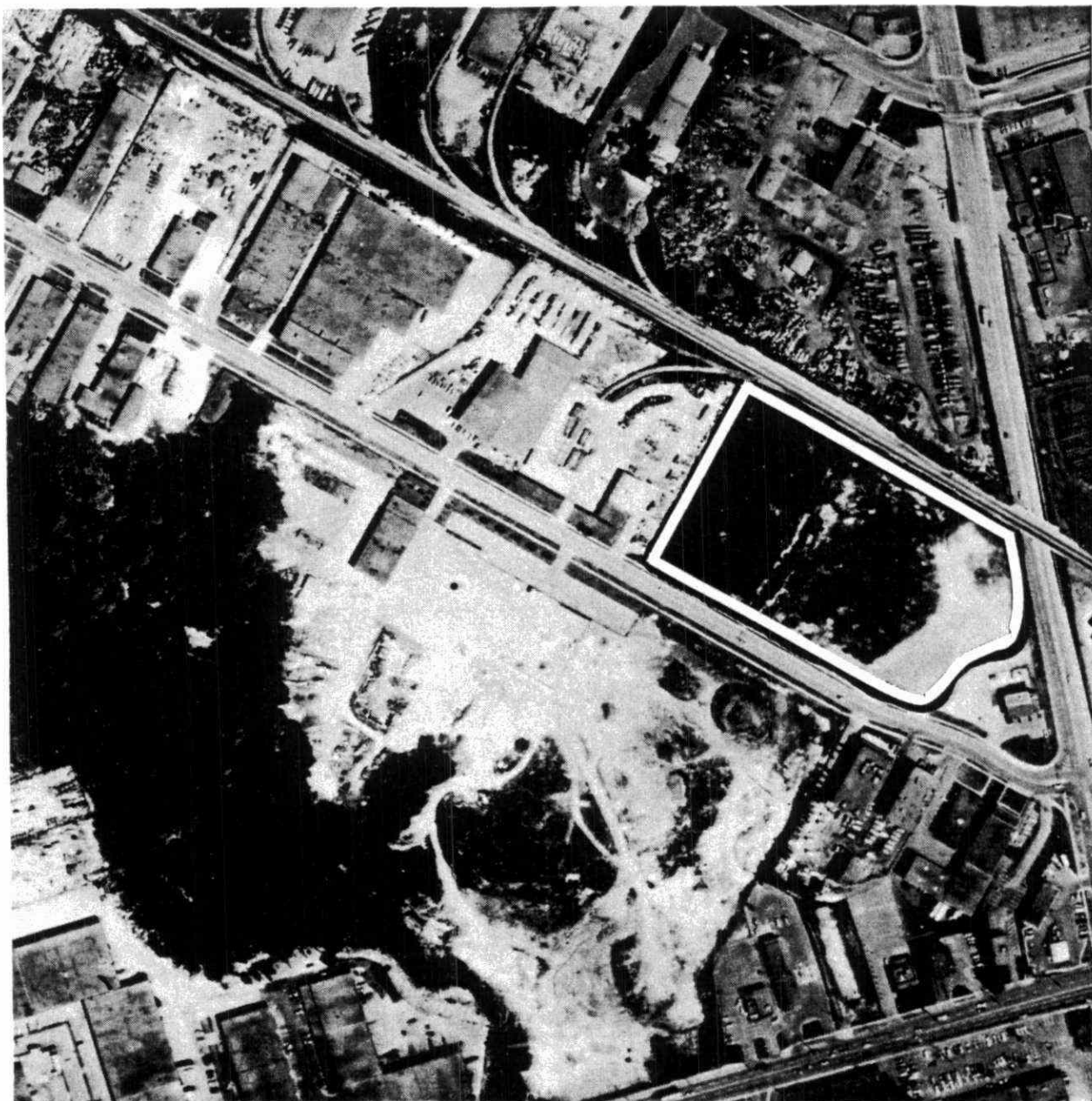
Ontario

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# OLD WASTE DISPOSAL SITE STUDY

SITE NO.

3063



Morrison Beatty Limited  
Gore & Storrie Limited

DISPOSAL  
AREA



SCALE 1:4500







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(To be completed in duplicate, 1 copy to MOE Regional office, 1 copy to MOE Head office)

FORM I  
(Site Identification Study)

## SITE INSPECTION

MOE REGION CENTRAL REGION DATE Sept. 16, 1980 SITE IDENTIFICATION CODE 3063SITE Toryork & Weston  
(Lot, concession #, or UTM coordinates, name, address)ON-SITE TESTSI LeachateA. WATER BODIES WITHIN 100 METRES NONEParameterResults

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

B. WELLS WITHIN 100 METRES NONEParameterResults

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

Any significant odour problems Yes        No x Comments       LAB TESTS (2 LITRE SAMPLES)Required, Yes        No x If Yes, complete Form II, Lab Analysis. If No, go to Part II, Gas.II Gas

C. ON-SITE

D. BUILDINGS

TestHolesResultsTestHolesResultsName/AddressResultsName/AddressResults

#1

11%

#6

1. Bank of Nova Scotia

0%

6.

#2

6%

#7

2. (Toryork &amp; Weston)

7.

#3

50%

#8

3. 23 Toryork, Tony's Catering

0%

8.

#4

15%

#9

4.

9.

#5

0%

#10

5.

10.

III General Comments (vegetation, leachate springs, depth, etc.)       

(Detail all test point locations in a sketch on reverse side)

Form completed by: Nancy Rennie



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Environment

# OLD WASTE DISPOSAL SITE STUDY

Site Number... 3064

Location..... AMESBURY PARK  
BOROUGH OF NORTH YORK

Morrison Beatty Limited

Gore & Storrie Limited



Ministry  
of the  
Environment

Ontario

# OLD WASTE DISPOSAL SITE STUDY

SITE NO. 3064

LOCATION

Amesbury Park

North York

## Background

### Waste Disposal Practices

- Operated by Inflammable Disposal Company Ltd. for the then Township of North York.
- Originally used in the 1940's and up to 1951 for Ash disposal from the on-site solid wastes incinerator.
- The site then remained dormant from 1951 until 1957 when it was reopened for domestic and some liquid industrial wastes disposal.
- It is believed that the Township of North York used the site until 1961 before moving to their "Bluehaven" disposal site.
- The area of the site is roughly 8 hectares.
- Information sources were Messrs. Jack Marlow, Bill Borough and John Nick, Works Department, City of North York.

### Land Uses

**Original** - A ravine.

## Present Development

**On - site**

- Parkland, park community centre, parking lot.
- Baseball diamonds.
- A large ski hill (currently being developed).
- A storm sewer traverses the site.

**Abutting**

North - Tennis courts, Firehall No. 8, Amesbury Park Community Centre, highrise apartments.

West - Amesbury arena and paved parking lot.

East - Apartment buildings and paved parking lots on Keele Street.

South - George Anderson Public School.

- Single family homes on Garside Crescent and Woodridge Court.

## Present Site Owner

- Borough of North York Parks Department.

## Hydrogeologic Setting

### Geology

- Amesbury Park is located within clayey silt till deposit

### Regional Drainage

- the site is within the watershed of the Black Creek
- entire area is serviced by storm sewers
- the site is a former ravine which paralleled Lawrence Ave. and extended from just west of Keele St to Black Creek

## Disposal Site Detail

### Fill Characteristics

- refuse disposed of at this site comprised industrial and domestic waste
- the refuse is estimated to be 5 to 10 m in depth; a major re-grading project was underway at the time of our inspection; clean fill is being used for this work
- the by-law states that the refuse was to be compacted in one metre lifts
- there is no exposed refuse anywhere on site; a good quality grass cover is maintained for recreational purposes

### Topography and Drainage

- the site is quite hummocky due to original contouring of the landfill
- the eastern portion is relatively flat and is used as a playfield for baseball and soccer
- the site is well drained

## Identified Impact

### Settlement & Erosion

- settlement cracks and depressions are present over the entire site
- a paved parking area near the arena shows signs of uneven settlement
- no evidence of erosion except from the recently dumped clean fill piles; this is all contained on site

### Vegetation Stress

- there are patchy areas of vegetation stress over much of the site

### Leachate

- there was no evidence of leachate seepage anywhere on the site

### Methane Gas

- methane gas was detected in concentrations of up to 55% at several locations in the disposal site
- no methane detected around paved parking areas
- no gas was detected in any of the adjoining homes, public buildings or apartment buildings
- firehall apparently measured methane in their basement several years ago and still smell gas on occasion; the firemen have detected methane at a floor drain and around the outer foundation wall; when first occupied gas leakage at the drain could be ignited, however, the drain has been sealed
- Metro Toronto Works Dept. monitored the site in May, 1980 and found explosive levels of methane in the ground near the library, firehall and the apartment at 1465 Lawrence Ave West

### Potential Impacts

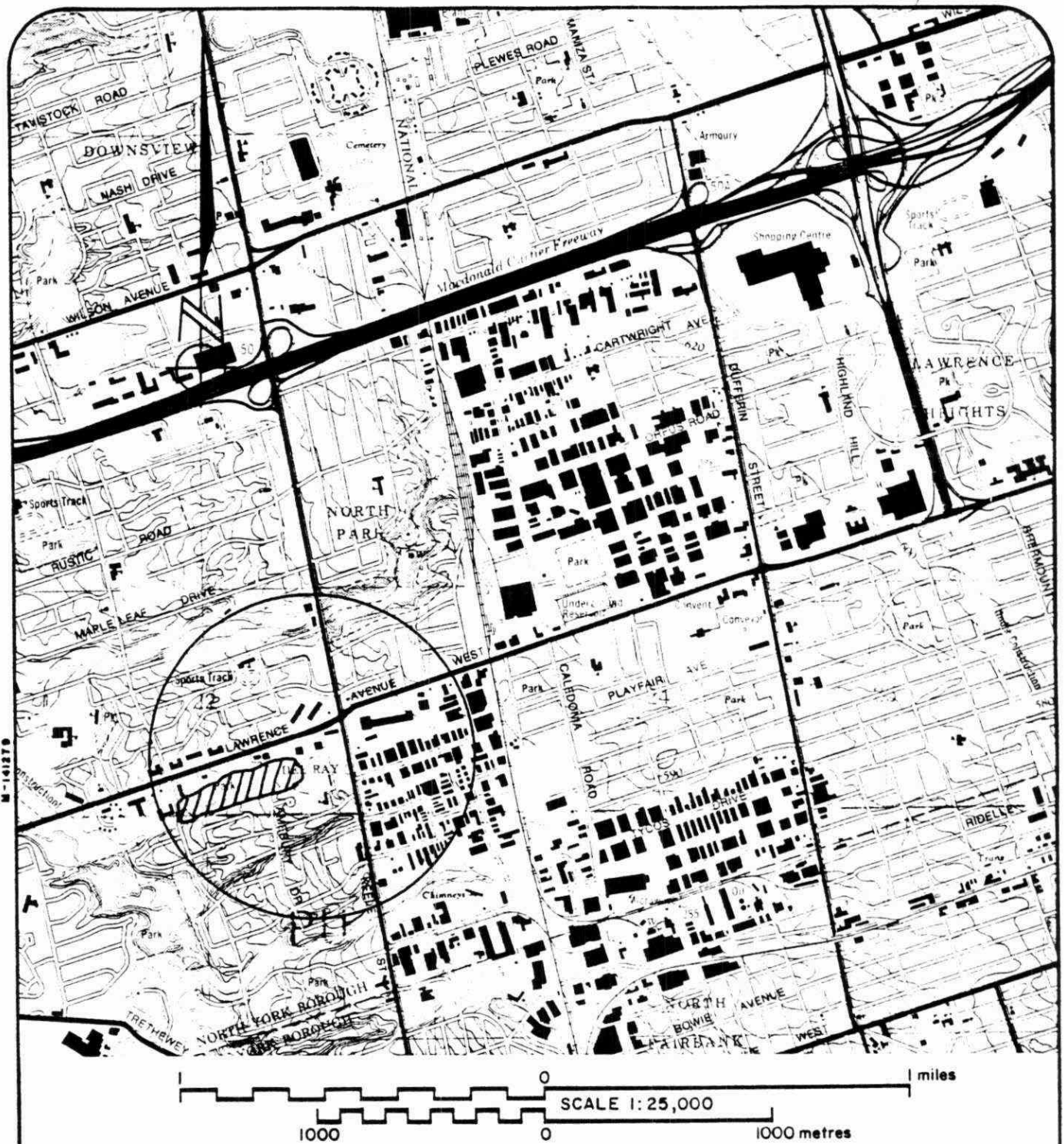
- gas migration into the school, library, firehall, apartment buildings, homes and other adjoining buildings through granular bedding; beneath paved areas, or sand lenses in the glacial till

## Recommendations

1. The disposal site and future uses should be permanently identified as follows:
  - (a) identify the "limits of fill" on the Official Plan,
  - (b) amend the Zoning By-law for the disposal site to restrict future uses,
  - (c) register a Notice on the title of the property with the Land Registrar which identifies the disposal site, the potential impacts and the restricted future uses,
  - (d) prohibit future residential development on the disposal site and a limited buffer zone around this site.
2. The Part II study should be carried out to assess the potential impacts. The study should include the following:
  - i) installation of multi-depth gas probes as set out in the Table below,
  - ii) monitoring of gas probes for methane concentration and ground and atmospheric air pressure every two weeks from November to May, and
  - iii) monitoring of methane gas in abutting buildings if the concentration in the ground outside the foundation exceeds 5% by volume.
3. The results of the monitoring program should be assessed to determine:
  - i) if monitoring can be terminated, in the event of no apparent hazard,
  - ii) if monitoring should be continued, in the event of an identified potential hazard,
  - iii) if permanent gas controls should be installed, in the event of a hazardous impact,
  - iv) minimum buffer zones for future development around the site.
4. The construction history of on-site and near-site buildings should be reviewed. The following should be examined:
  - i) soil investigation reports,
  - ii) reports of waste materials encountered during construction,
  - iii) plans of foundation design,
  - iv) details of special gas control systems, if any, and
  - v) details of gas monitoring program, if any.

| <u>LOCATION</u>                                                                                            | <u>ESTIMATED<br/>NUMBER</u> |
|------------------------------------------------------------------------------------------------------------|-----------------------------|
| - in the backyards of the properties Garside Crescent, Amesbury Drive, Woodridge Crescent and Culford Road | 13                          |
| - the vicinity of the foundations of the:                                                                  |                             |
| Amesbury Arena .....                                                                                       | 3                           |
| Library .....                                                                                              | 2                           |
| Parks Department .....                                                                                     | 2                           |
| Firehall No. 8 .....                                                                                       | 2                           |
| 1465 and 1455 Lawrence Ave. ....                                                                           | 8                           |
| Geo. Anderson Public School .....                                                                          | 6                           |

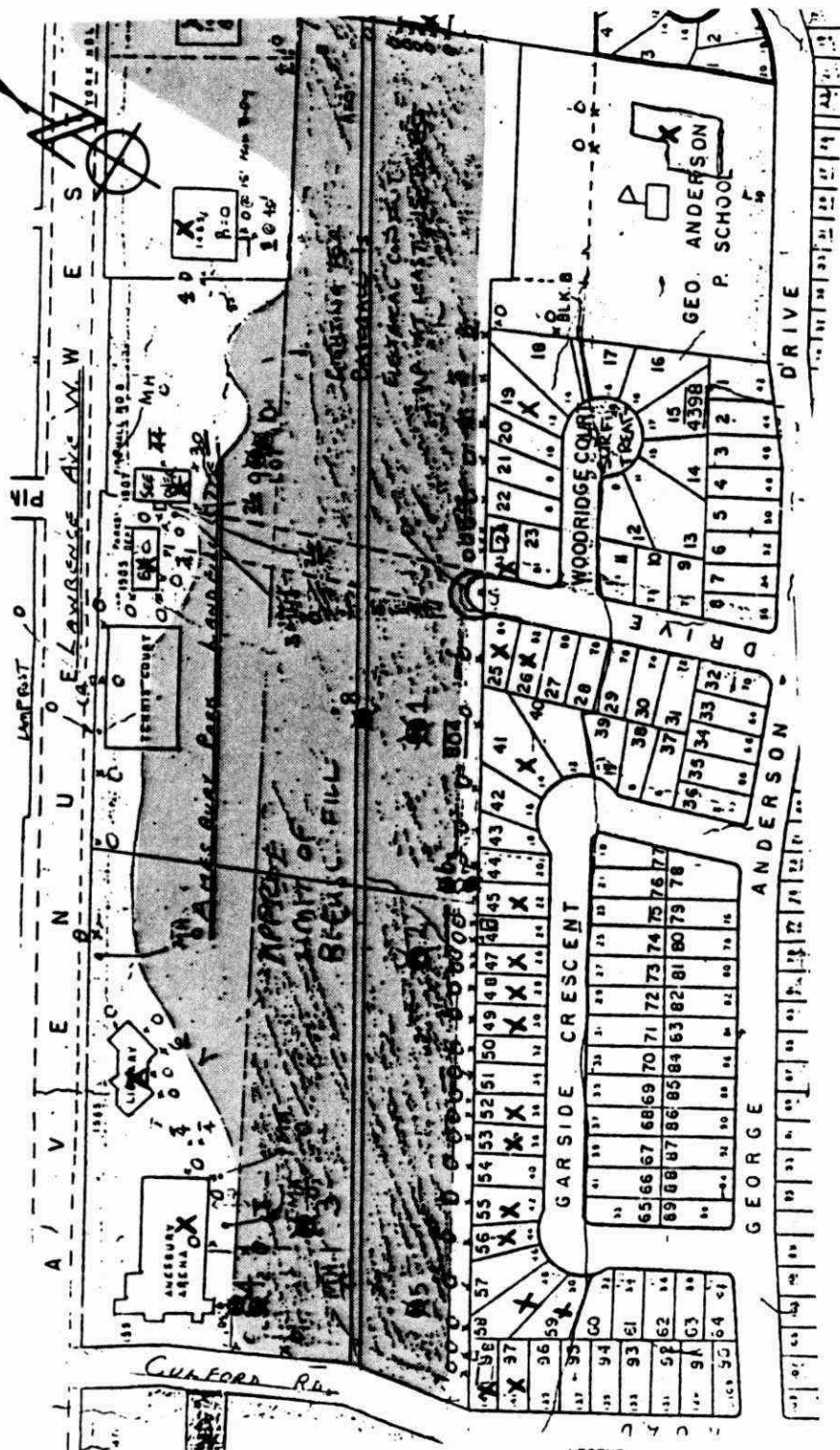




SITE NO. 3064  
AMESBURY PARK

NORTH  
YORK

Morrison Beatty Limited  
Gore & Storrie Limited



NOT TO SCALE

**SITE NO. 3064**  
**AMESBURY PARK**

**NORTH**  
**YORK**

**Morrison Beatty Limited**  
**Gore & Storrie Limited**



Ministry  
of the  
Environment

# OLD WASTE DISPOSAL SITE STUDY

**SITE NO.**  
3064



**Morrison Beatty Limited**  
**Gore & Storrie Limited**

DISPOSAL  
AREA



SCALE 1:4500







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of the  
Environment  
Ontario

(To be completed in duplicate, 1 copy to MOE Regional office, 1 copy to MOE Head office)

FORM I  
(Site Identification Study)

### SITE INSPECTION

MOE REGION CENTRAL REGION DATE Sept. 18, 1980 SITE IDENTIFICATION CODE 3064  
SITE Amesbury Park  
(Lot, concession #, or UTM coordinates, name, address)

#### ON-SITE TESTS

##### I Leachate

###### A. WATER BODIES WITHIN 100 METRES

###### Parameter

###### Results

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

###### B. WELLS WITHIN 100 METRES

###### Parameter

###### Results

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

Any significant odour problems Yes ☐ No ☒ Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### LAB TESTS (2 LITRE SAMPLES)

Required, Yes ☐ No ☒ If Yes, complete Form II, Lab Analysis. If No, go to Part II, Gas.

##### II Gas

###### C. ON-SITE

###### Test

###### Holes

###### Results

- #1 18%
- #2 42%
- #3 35%
- #4 0%
- #5 5%

###### Test

###### Holes

###### Results

- #6 55%
- #7 0%
- #8 50%
- #9 3.5%
- #10 1.5%

###### D. BUILDINGS

###### Name/Address

###### Results

1. Fire Station #8, 1507 Lawrence 0%
2. 1465 Lawrence (apt) 0%
3. 1455 Lawrence (apt) 0%
4. George Anderson Public School 0%
5. Amesbury Arena 0%

###### Name/Address

###### Results

6. 143 Culford Rd 0%
7. 141 Culford Rd 0%
8. 139 Culford Rd (no one home)
9. 2370 Keele St. (apt) 0%
10. 2368 Keele St. (no supt avail)

III General Comments (vegetation, leachate springs, depth, etc.) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(Detail all test point locations in a sketch on reverse side)

Form completed by: Nancy Rennie



SITE INSPECTION

MOE REGION \_\_\_\_\_ DATE \_\_\_\_\_ SITE IDENTIFICATION CODE 3064 - Page 2

SITE Amesbury Park cont'd  
(Lot, concession #, or UTM coordinates, name, address)

ON-SITE TESTS

I Leachate

A. WATER BODIES WITHIN 100 METRES

Parameter

Results

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

B. WELLS WITHIN 100 METRES

Parameter

Results

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

Any significant odour problems Yes \_\_\_\_\_ No \_\_\_\_\_ Comments \_\_\_\_\_

LAB TESTS (2 LITRE SAMPLES)

Required, Yes \_\_\_\_\_ No \_\_\_\_\_ If Yes, complete Form II, Lab Analysis. If No, go to Part II, Gas.

II Gas

C. ON-SITE

D. BUILDINGS

Test

Holes

Results

Test

Holes

Results

Name/Address

Results

Name/Address

Results

- |    |       |     |       |
|----|-------|-----|-------|
| #1 | _____ | #6  | _____ |
| #2 | _____ | #7  | _____ |
| #3 | _____ | #8  | _____ |
| #4 | _____ | #9  | _____ |
| #5 | _____ | #10 | _____ |

- |                              |    |                             |    |
|------------------------------|----|-----------------------------|----|
| 1. Amesbury Pk. Comm. Centre | 0% | 6. 44 Garside               | 0% |
| 2. Library, 1565 Lawrence    | 0% | 7. 48 Garside               | 0% |
| 3. 50 Garside                | 0% | 8. 42 Garside (no one home) |    |
| 4. 42 Garside                | 0% | 9. 46 Garside (no one home) |    |
| 5. 40 Garside (no one home)  |    | 10. 30 Garside              | 0% |

III General Comments (vegetation, leachate springs, depth, etc.) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(Detail all test point locations in a sketch on reverse side)

Form completed by: Nancy Rennie



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(To be completed in duplicate, 1 copy to MOE Regional office, 1 copy to MOE Head office)

FORM I  
(Site Identification Study)

### SITE INSPECTION

MOE REGION \_\_\_\_\_ DATE \_\_\_\_\_ SITE IDENTIFICATION CODE 3064 - Page 3  
SITE Amesbury Park cont'd  
(Lot, concession #, or UTM coordinates, name, address)

#### ON-SITE TESTS

##### I Leachate

###### A. WATER BODIES WITHIN 100 METRES

###### Parameter

###### Results

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

###### B. WELLS WITHIN 100 METRES

###### Parameter

###### Results

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

Any significant odour problems Yes \_\_\_\_\_ No \_\_\_\_\_ Comments \_\_\_\_\_

#### LAB TESTS (2 LITRE SAMPLES)

Required, Yes \_\_\_\_\_ No \_\_\_\_\_ If Yes, complete Form II, Lab Analysis. If No, go to Part II, Gas.

##### II Gas

###### C. ON-SITE

###### D. BUILDINGS

###### Test

###### Holes

###### Results

###### Test

###### Holes

###### Results

###### Name/Address

###### Results

###### Name/Address

###### Results

#1

\_\_\_\_\_

#6

\_\_\_\_\_

1. 34 Garside (no one home)

\_\_\_\_\_

6. 22 Garside

0%

#2

\_\_\_\_\_

#7

\_\_\_\_\_

2. 32 Garside (no one home)

\_\_\_\_\_

7. 20 Garside (no one home)

\_\_\_\_\_

#3

\_\_\_\_\_

#8

\_\_\_\_\_

3. 28 Garside

0%

8. 18 Garside (no one home)

\_\_\_\_\_

#4

\_\_\_\_\_

#9

\_\_\_\_\_

4. 26 Garside

0%

9. 16 Garside (no one home)

\_\_\_\_\_

#5

\_\_\_\_\_

#10

\_\_\_\_\_

5. 24 Garside (no one home)

\_\_\_\_\_

10. 14 Garside

0%

III General Comments (vegetation, leachate springs, depth, etc.) \_\_\_\_\_

(Detail all test point locations in a sketch on reverse side)

Form completed by: Nancy Rennie





SITE INSPECTION

MOE REGION \_\_\_\_\_ DATE \_\_\_\_\_ SITE IDENTIFICATION CODE \_\_\_\_\_ 3064 - Page 4

SITE Amesbury Park cont'd  
(Lot, concession #, or UTM coordinates, name, address)

ON-SITE TESTS

I Leachate

A. WATER BODIES WITHIN 100 METRES

Parameter

Results

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

B. WELLS WITHIN 100 METRES

Parameter

Results

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

Any significant odour problems Yes \_\_\_\_\_ No \_\_\_\_\_ Comments \_\_\_\_\_

LAB TESTS (2 LITRE SAMPLES)

Required, Yes \_\_\_\_\_ No \_\_\_\_\_ If Yes, complete Form II, Lab Analysis. If No, go to Part II, Gas.

II Gas

C. ON-SITE

D. BUILDINGS

Test

Holes

Results

Test

Holes

Results

Name/Address

Results

Name/Address

Results

#1  
#2  
#3  
#4  
#5

#6  
#7  
#8  
#9  
#10

1. 12 Garside (no one home)  
2. 83 Amesbury Dr.  
3. 81 Amesbury Dr. (no one home)  
4. 38 Garside  
5. 36 Garside

0%  
0%  
0%

6. 78 Amesbury (no one home)  
7. 80 Amesbury (no one home)  
8. 82 Amesbury  
9. 84 Amesbury  
10. 12 Woodridge

0%  
0%  
0%

III General Comments (vegetation, leachate springs, depth, etc.) \_\_\_\_\_ 14, 6, 8, 10 Woodridge (no one home)

(Detail all test point locations in a sketch on reverse side)

Form completed by: Nancy Rennie

B O R O U G H      O F      Y O R K

HICKORY TREE SITE - WILBY CRESCENT



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# OLD WASTE DISPOSAL SITE STUDY

Site Number... HICKORY TREE SITE

Location..... WILBY CRESCENT  
BOROUGH OF YORK

Morrison Beatty Limited

Gore & Storrie Limited



Ontario

Ministry  
of the  
Environment

# OLD WASTE DISPOSAL SITE STUDY

SITE NO. N/A  
LOCATION Weston Rd.  
& Wright (Hickory  
Tree), York

## Background

### Waste Disposal Practices

- Operated by the former Township of York as a domestic and commercial waste disposal site in the 1960's.
- The cover fill consists of asphalt, bricks and cement chunks that can be easily seen jutting from the surface.
- Recently deposited clean fill over Hickory Tree Road at the southeast end of the site.
- The site is roughly 3.5 hectares in area and extends into the playfield adjacent to the Weston Arena. It is estimated that the fill could reach 11 metres in some areas.

### Land Uses

#### Original

- Site of sewage treatment plant and municipal incinerator.

### Present Development

#### On - site

- Mostly vacant, undeveloped land.
- Parkland adjacent to the Weston Arena.
- Storm sewer traverses the site.

#### Abutting

- North - Weston Arena and associated buildings.
- West - Humber River.
- East - Weston Road, highrise apartment building on Bellevue Crescent, commercial buildings on Weston Road.
- South - Humber River.

### Present Site Owner

- Metropolitan Toronto and Region Conservation Authority.
- Borough of York.

## Hydrogeologic Setting

### Geology

- the site is located on a valley slope of the Humber River; the upper part of the site is underlain by Lake Iroquois sand and silt, whereas the valley floor is underlain by Dundas shale
- soil investigations have been conducted by J.T. Donald Consultants Limited and Dominion Soil Investigation Inc. and Warnock Hersey Professional Services Ltd.

### Regional Drainage

- the site abuts the main branch of the Humber River
- the upland, surrounding areas are drained by storm sewers, and a 36-inch diameter storm sewer traverses the site to the Humber River

## Disposal Site Detail

### Fill Characteristics

- the Western Sewage Treatment Plant and a municipal incinerator were formerly located at this site; both were demolished and the lands filled in the late 1960's
- about 30 boreholes have been drilled at the site; the identified fill ranges from 2 to 15 m in depth and generally comprises excavation spoil and construction rubble
- unidentified waste disposal at the site includes sewage sludge (in drying beds), incinerator ash and an old "garbage dump" which was identified on Kilborn Engineering Co. Limited Drwg No. 16-B-2-2 (Dec. 1952)

### Topography and Drainage

- the table land of the fill area slopes gently southwest; the slope down to the Humber River is about 3:1; relief on the fill area is about 16 m
- drainage on the site is relatively good

## Identified Impact

### Settlement & Erosion

- the upper limit of fill at the top of the bank is easily identified by the settlement which has taken place
- some lateral movement of the fill was evident by tilted retaining blocks at the toe of the slope; the Humber River has caused toe erosion
- some sheet erosion is present on the steeper slopes of the site; the erosion has exposed the fill material (concrete, brick, asphalt, etc)

### Vegetation Stress

- there are patchy areas of vegetation stress at the extreme northern end of the site; this is a park or playfield area where the grass is maintained for recreational purposes

### Leachate

- no leachate seepage was observed at the toe of the landfill
- there was no measureable impact on the river

### Methane Gas

- trace readings of methane were found in three barholes on the slope of the fill area
- no gas was detected in any of the monitored buildings
- a previous investigation in early June, 1980, by Warnock Hersey Professional Services Ltd, included the drilling of 12 uncased boreholes to determine the presence of methane gas; one borehole in the "garbage dump" area and one borehole in the old digester showed explosive levels of methane

## Potential Impacts

- the previous soil testing at the site indicates large quantities of organic waste are not present at the site; as a result, no significant offsite impacts are expected
- the previous gas monitoring suggests methane generation may be limited to the known areas of organic waste (eg - old "garbage dump", sludge drying beds, digesters, etc); methane generation from such areas could have a significant impact on building development on the fill site

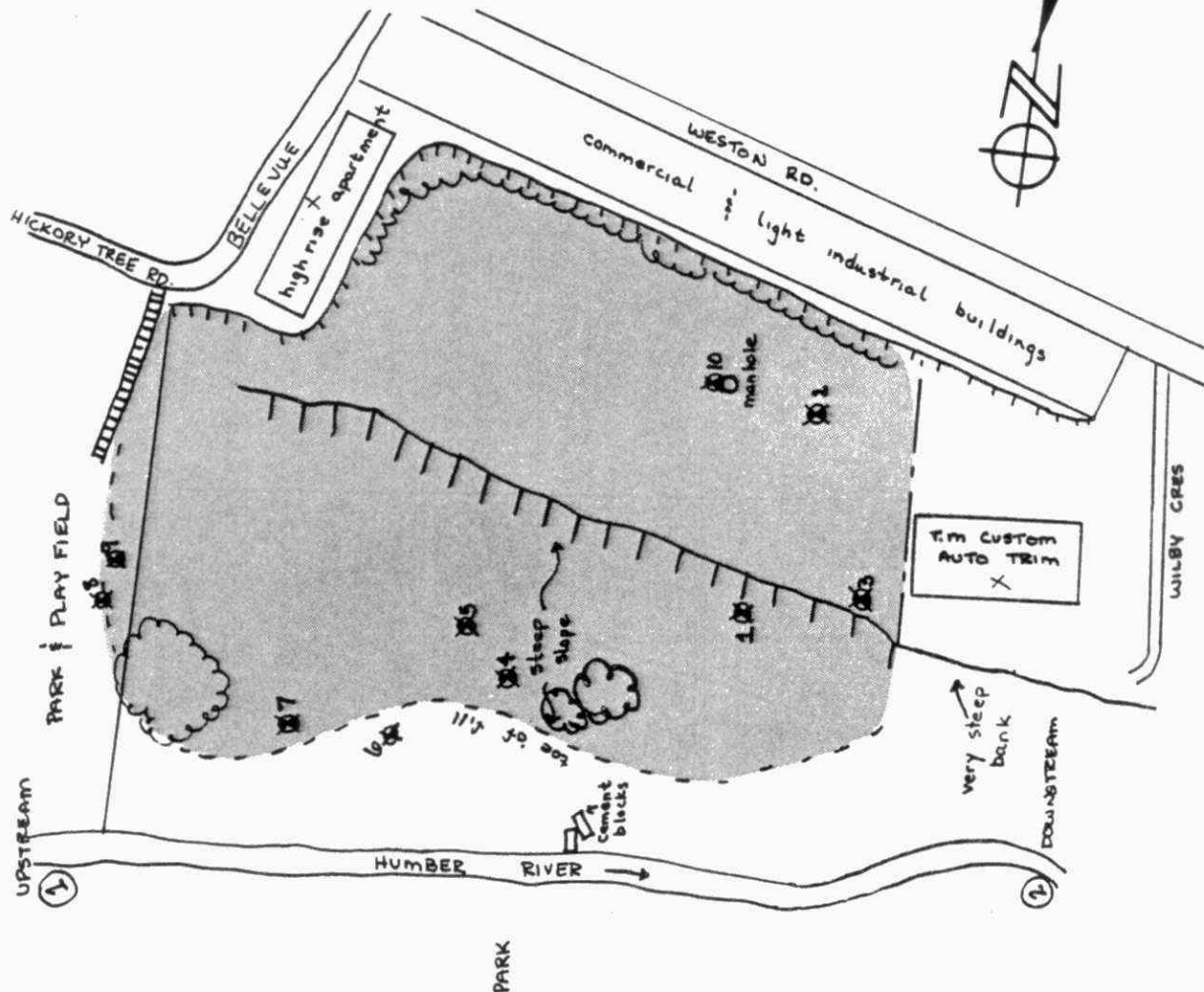


## Recommendations

1. The disposal site and future uses should be permanently identified as follows:
  - (a) identify the "limits of fill" on the Official Plan,
  - (b) amend the Zoning By-law for the disposal site to restrict future uses,
  - (c) register a Notice on the title of the property with the Land Registrar which identifies the disposal site, the potential impacts and the restricted future uses,
  - (d) prohibit future residential development on the disposal site and a limited buffer zone around the site.
2. No further studies of leachate or gas are required if no further building development is planned for the site.
3. If building development is planned, a comprehensive field study will be required to identify the extent of organic wastes at the site; to assess the methane production from such wastes; and to evaluate the impact of the methane on the proposed structures. Permanent, multi-depth gas probes are required for this study, and monitoring of methane concentration and ground and atmospheric pressures should be carried out monthly between October and May.

M-141279





LEGEND

- |                        |                                                                                       |
|------------------------|---------------------------------------------------------------------------------------|
| WASTE DISPOSAL SITE    |  |
| WATER SAMPLE LOCATIONS | ①                                                                                     |
| GAS SAMPLE LOCATIONS   |                                                                                       |
| - in field             | ⊗ 2                                                                                   |
| - in buildings         | x 2                                                                                   |

NOT TO SCALE

**SITE NO.**  
HICKORY TREE SITE  
BOROUGH OF YORK

Morrison Beatty Limited  
Gore & Storrie Limited



Ministry  
of the  
Environment

Ontario

# OLD WASTE DISPOSAL SITE STUDY

**SITE NO.**  
HICKORY  
TREE SITE



Morrison Beatty Limited  
Gore & Storrie Limited

DISPOSAL  
AREA



SCALE 1:10 000





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Ontario

(To be completed in duplicate, 1 copy to MOE Regional office, 1 copy to MOE Head office)

FORM I  
(Site Identification Study)

### SITE INSPECTION

MOE REGION CENTRAL REGION DATE Sept. 17, 1980 SITE IDENTIFICATION CODE \_\_\_\_\_  
SITE Hickory Tree Site, Borough of North York  
(Lot, concession #, or UTM coordinates, name, address)

#### ON-SITE TESTS

#### I Leachate

##### A. WATER BODIES WITHIN 100 METRES

| Parameter       | mg/l  | Results |      |   |   |   |   |   |   |   |    |
|-----------------|-------|---------|------|---|---|---|---|---|---|---|----|
|                 |       | 1       | 2    | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1) Chlorides    |       | 122     | 91.5 |   |   |   |   |   |   |   |    |
| 2) pH           |       | 7       | 7    |   |   |   |   |   |   |   |    |
| 3) Iron         |       | .10     | .08  |   |   |   |   |   |   |   |    |
| 4) Alkalinity   |       | 240     | 257  |   |   |   |   |   |   |   |    |
| 5) Conductivity | µmhos | 390     | 450  |   |   |   |   |   |   |   |    |

##### B. WELLS WITHIN 100 METRES

| Parameter           | Results |   |   |   |   |   |   |   |   |    |
|---------------------|---------|---|---|---|---|---|---|---|---|----|
|                     | 1       | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1) Chlorides        |         |   |   |   |   |   |   |   |   |    |
| 2) Dissolved solids |         |   |   |   |   |   |   |   |   |    |
| 3) Iron             |         |   |   |   |   |   |   |   |   |    |
| 4) Alkalinity       |         |   |   |   |   |   |   |   |   |    |
| 5) Conductivity     |         |   |   |   |   |   |   |   |   |    |

Any significant odour problems Yes \_\_\_\_\_ No X Comments \_\_\_\_\_

#### LAB TESTS (2 LITRE SAMPLES)

Required, Yes \_\_\_\_\_ No X If Yes, complete Form II, Lab Analysis. If No, go to Part II, Gas.

#### II Gas

##### C. ON-SITE

| Test  | Results | Test  | Results    |
|-------|---------|-------|------------|
| Holes |         | Holes |            |
| #1    | 0%      | #6    | 0%         |
| #2    | 0%      | #7    | 0%         |
| #3    | trace   | #8    | 0%         |
| #4    | trace   | #9    | 0%         |
| #5    | trace   | #10   | manhole 0% |

##### D. BUILDINGS

| Name/Address             | Results | Name/Address | Results |
|--------------------------|---------|--------------|---------|
| 1. T.M. Custom Auto Trim |         | 6. _____     |         |
| 2. 10 Wilby Cres         | 0%      | 7. _____     |         |
| 3. _____                 |         | 8. _____     |         |
| 4. 5 Bellevue Cres       | 0%      | 9. _____     |         |
| 5. _____                 |         | 10. _____    |         |

III General Comments (vegetation, leachate springs, depth, etc.) \_\_\_\_\_

(Detail all test point locations in a sketch on reverse side)

Form completed by: Nancy Rennie

B O R O U G H     O F     E A S T     Y O R K

|      |                               |
|------|-------------------------------|
| 3027 | LESLIE & VANDERHOOF           |
| 3028 | COPELAND ST & COMMERCIAL ROAD |
| 3038 | GLEDHILL & HOLBORNE           |
| 3040 | LUMSDEN & EASTDALE            |
| 3041 | GOODWOOD PARK                 |
| 3043 | PARK VISTA & DAWES ROAD       |
| 3044 | ST. CLAIR & WOODBINE          |
| 3045 | ST. CLAIR & MARILYN CRESCENT  |
| 3046 | ST. CLAIR & O'CONNOR          |
| 3048 | O'CONNOR & CURITY             |





Ontario

Ministry  
of the  
Environment

# OLD WASTE DISPOSAL SITE STUDY

Site Number... 3027

Location..... LESLIE & VANDERHOOF  
BOROUGH OF EAST YORK

Morrison Beatty Limited

Gore & Storrie Limited



Ontario

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of the  
Environment

# OLD WASTE DISPOSAL SITE STUDY

SITE NO. 3027

LOCATION

Leslie & Vanderhoof

East York

## Background

### Waste Disposal Practices

- Operated by the then Township of East York as a solid waste disposal site from the mid 1960's to 1967 when Metropolitan Toronto undertook waste disposal responsibilities.
- The site is approximately 18 hectares in size and consists of domestic and commercial wastes including large quantities of scrap wire from the nearby Canada Wire Factory.
- Information sources were Messrs. H. Clark and F. Moffat of the Borough of East York and Mr. Gordon Hull, the bulldozer operator for the site when it was used.

### Land Uses

#### Original

- Sloping land forming part of the West Don River Valley.
- The Manager of the adjacent Ontario Sports Centre remembers the flat area at the top of the hill being used as a runway during the war.

### Present Development

#### On - site

- The majority of the land is currently vacant.
- A portion of the Ontario Sports Centre parking lot may be situated on the site.

#### Abutting

- North - Eglinton Avenue.
- East - CP railway line and Dymont Ltd. warehouse, 210 Wickstead Avenue.
- South - Corning Company industrial building.
- West - West Don River.

### Present Site Owner

- Borough of East York
- Metropolitan Toronto and Region Conservation Authority

## Hydrogeologic Setting

### Geology

- the site is within the sand deposits of Lake Iroquois
- the base of the site is on recent river deposits of sand, silt and gravel

### Regional Drainage

- site is within the floodplain of the West Branch of the Don River
- the surrounding, upland areas are serviced by storm sewers
- there is a small drainage ditch to the north which runs beside Eglinton Ave and enters the Don River at the toe of the fill area

## Disposal Site Detail

### Fill Characteristics

- the refuse has been placed on the floodplain of the Don River, West Branch and on the valley embankment
- vegetation cover consists of grasses, weeds and a few recently planted trees; the site is not maintained

### Topography and Drainage

- the site slopes towards the northeast at an average gradient of about 4:1
- the relief of the slope is approximately 33 m from crest to toe
- the site is well-drained

## Identified Impact

### Settlement & Erosion

- settlement cracks and depressions were observed over the entire site
- the paved parking area at the Ontario Sports Building showed some signs of settlement
- minor erosion has occurred on the steep slope face
- recently planted poplar and coniferous trees may help stabilize the slope if not affected by the presence of methane

### Vegetation Stress

- patchy areas of decayed vegetation were evident over much of the site but restricted mainly to the upper slopes

### Leachate

- no evidence of leachate seepage at the toe of the landfill or along the sandy bank of the Don River
- no measurable impact on water quality in the river

### Methane Gas

- methane gas in concentrations of up to 40% were recorded on the site
- no methane gas was recorded along the paved parking area abutting the site
- no gas was detected in the three buildings monitored

## Potential Impacts

- gas migration to the Ontario Sports Building and the Dymont Warehouse on Vanderhoof Ave via the sandy overburden or granular bedding in service trenches
- gas migration to the Corningware Building via granular bedding beneath Vanderhoof Ave.

## Recommendations

1. The disposal site and future uses should be permanently identified as follows:
  - (a) identify the "limits of fill" on the Official Plan,
  - (b) amend the Zoning By-law for the disposal site to restrict future uses,
  - (c) register a Notice on the title of the property with the Land Registrar which identifies the disposal site, the potential impacts and the restricted future uses,
  - (d) prohibit future residential development on the disposal site and a limited buffer zone around this site.
2. The Part II study should be carried out to assess the potential impacts. The study should include the following:
  - i) installation of multi-depth gas probes as set out in the Table below,
  - ii) monitoring of gas probes for methane concentration and ground and atmospheric air pressure every two weeks from November to May, and
  - iii) monitoring of methane gas in abutting buildings if the concentration in the ground outside the foundation exceeds 5% by volume.
3. The results of the monitoring program should be assessed to determine:
  - i) if monitoring can be terminated, in the event of no apparent hazard,
  - ii) if monitoring should be continued, in the event of an identified potential hazard,
  - iii) if permanent gas controls should be installed, in the event of a hazardous impact,
  - iv) minimum buffer zones for future development around the site.
4. The construction history of on-site and near-site buildings should be reviewed. The following should be examined:
  - i) soil investigation reports,
  - ii) reports of waste materials encountered during construction,
  - iii) plans of foundation design,
  - iv) details of special gas control systems, if any, and
  - v) details of gas monitoring program, if any.

| <u>LOCATION</u>                              | <u>ESTIMATED<br/>NUMBER</u> |
|----------------------------------------------|-----------------------------|
| - in the vicinity of the foundations of the: |                             |
| Ontario Sports Building                      | 3                           |
| Dyment Warehouse                             | 2                           |
| Corningware Building                         | 2                           |

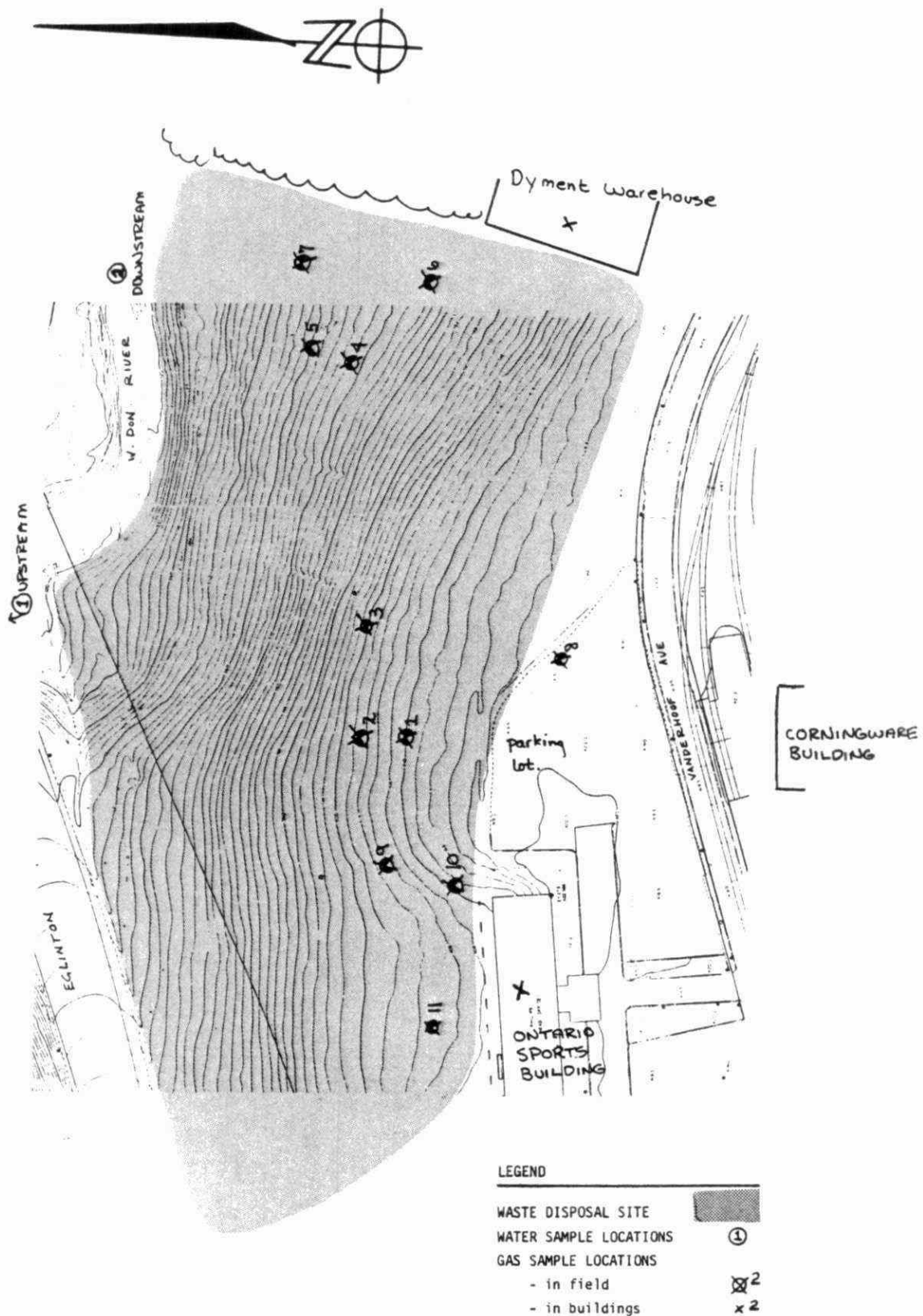




SITE NO. 3027 East York  
LESLIE and Vanderhoof

Morrison Beatty Limited  
Gore & Storrie Limited





NOT TO SCALE

SITE NO. 3027 East York  
LESLIE and Vanderhoof

Morrison Beatty Limited  
Gore & Storrie Limited



Ministry  
of the  
Environment

Ontario

# OLD WASTE DISPOSAL SITE STUDY

**SITE NO.**

**3027**



**Morrison Beatty Limited**  
**Gore & Storrie Limited**

**DISPOSAL  
AREA**



**SCALE 1:6670**





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Ontario

(To be completed in duplicate, 1 copy to MOE Regional office, 1 copy to MOE Head office)

FORM I  
(Site Identification Study)

### SITE INSPECTION

MOE REGION CENTRAL REGION DATE Sept. 19, 1980 SITE IDENTIFICATION CODE 3027  
SITE Leslie and Vanderhoof, Borough of East York  
(Lot, concession #, or UTM coordinates, name, address)

#### ON-SITE TESTS

#### I Leachate

##### A. WATER BODIES WITHIN 100 METRES

| Parameter       | mg/l  | Results |     |   |   |   |   |   |   |   |    |
|-----------------|-------|---------|-----|---|---|---|---|---|---|---|----|
|                 |       | 1       | 2   | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1) Chlorides    |       | 183     | 183 |   |   |   |   |   |   |   |    |
| 2) pH           |       | 7       | 7   |   |   |   |   |   |   |   |    |
| 3) Iron         |       | 12      | 12  |   |   |   |   |   |   |   |    |
| 4) Alkalinity   |       | 257     | 257 |   |   |   |   |   |   |   |    |
| 5) Conductivity | µmhos | 525     | 525 |   |   |   |   |   |   |   |    |

##### B. WELLS WITHIN 100 METRES

| Parameter           | Results |   |   |   |   |   |   |   |   |    |
|---------------------|---------|---|---|---|---|---|---|---|---|----|
|                     | 1       | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1) Chlorides        |         |   |   |   |   |   |   |   |   |    |
| 2) Dissolved solids |         |   |   |   |   |   |   |   |   |    |
| 3) Iron             |         |   |   |   |   |   |   |   |   |    |
| 4) Alkalinity       |         |   |   |   |   |   |   |   |   |    |
| 5) Conductivity     |         |   |   |   |   |   |   |   |   |    |

Any significant odour problems Yes \_\_\_\_\_ No X Comments \_\_\_\_\_

#### LAB TESTS (2 LITRE SAMPLES)

Required, Yes \_\_\_\_\_ No X If Yes, complete Form II, Lab Analysis. If No, go to Part II, Gas.

#### II Gas

##### C. ON-SITE

| Test  | Results | Test  | Results |
|-------|---------|-------|---------|
| Holes |         | Holes |         |
| #1    | 14%     | #6    | 0%      |
| #2    | 13%     | #7    | 0%      |
| #3    | 40%     | #8    | 0%      |
| #4    | 1.5%    | #9    | 21%     |
| #5    | 40%     | #10   | 0%      |
|       |         | #11   | 0%      |

##### D. BUILDINGS

| Name/Address                   | Results | Name/Address | Results |
|--------------------------------|---------|--------------|---------|
| 1. Corningware, 135 Vanderhoof | 0%      | 6. _____     | _____   |
| 2. Dymment Whse, Wickstead &   | 0%      | 7. _____     | _____   |
| 3. _____ Vanderhoof            | _____   | 8. _____     | _____   |
| 4. Ontario Sports Building     | 0%      | 9. _____     | _____   |
| 5. _____                       | _____   | 10. _____    | _____   |

III General Comments (vegetation, leachate springs, depth, etc.) \_\_\_\_\_

(Detail all test point locations in a sketch on reverse side)

Form completed by: Nancy Rennie



Ontario

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# OLD WASTE DISPOSAL SITE STUDY

Site Number... 3028

Location..... COPELAND ST & COMMERCIAL RD  
BOROUGH OF EAST YORK

Morrison Beatty Limited

Gore & Storrie Limited





Ontario

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of the  
Environment

# OLD WASTE DISPOSAL SITE STUDY

SITE NO. 3028

LOCATION

Copeland & Commercial

East York

## Background

### Waste Disposal Practices

- Operated as a commercial and possibly a domestic waste disposal site from approximately 1915 to mid 1930's.
- It is believed that large quantities of metal waste from Durant Motors' munitions plant during World War I were deposited here.
- The Durant Motors' plant is now Canadian Wire Limited.
- It is believed that portions of the fill may reach down as much as 24 metres from the current grade.
- Information sources were Messrs. H. Clark, F. Moffat and G. Hall of the Works Department, Borough of East York.

### Land Uses

#### Original

- An old creek and natural draining swale which drained eventually into the west Don River.

### Present Development

#### On - site

- Unpaved commercial land of Canada Building Materials Limited consisting of storage sheds and a metal scrap yard.
- The CP rail line traverses the S.E. portion of the site.

#### Abutting

- |                |                                        |
|----------------|----------------------------------------|
| North          | - Industrial buildings.                |
| West           | - Industrial and commercial buildings. |
| South and East | - CP Rail and industrial buildings.    |
|                | - Open space and ravine.               |

### Present Site Owner

- Canada Building Materials Limited  
55 Industrial Street.

Morrison Beatty Limited | Gore & Storrie Limited

## Hydrogeologic Setting

### Geology

- site is within sand and silty sand deposits of Lake Iroquois

### Regional Drainage

- the site is within the watershed of the Don River, West Branch
- the site is located in the upper section of a former ravine
- upland drainage is now diverted to storm sewers, the main trunk of which discharges into the ravine at the toe of the landfill

## Disposal Site Detail

### Fill Characteristics

- refuse has been placed in the ravine of a tributary to the Don River, West Branch
- the maximum depth of refuse is estimated to be about 12 m
- the railway, which crosses the ravine southeast of the property, is presumably placed on a clean-fill embankment; however, uncovered refuse was observed southeast of the railway where a 15 m high 1:1 slope exists

### Topography and Drainage

- the site is basically flat and is used as a storage yard and parking area for Canada Building Materials
- drainage is only fair, due to the relatively flat surface



## Identified Impact

### Settlement & Erosion

- there were depressions over the entire site which appeared to be caused by fill settlement

### Vegetation Stress

- there is virtually no vegetation on the site, as it is used primarily for parking and equipment storage

### Leachate

- there are no apparent indications of leachate seepage

### Methane Gas

- methane gas was detected at only one location on the site in a concentration of 1 per cent
- no methane was recorded in any of the monitored buildings

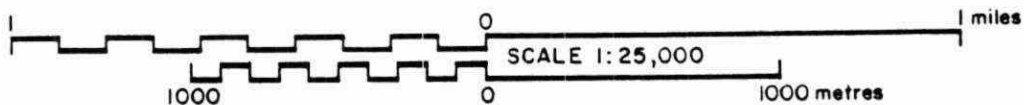
## Potential Impacts

- there should be no significant impacts from this site, providing building is not permitted on the filled areas

## Recommendations

1. The disposal site and future uses should be permanently identified as follows:
  - (a) identify the "limits of fill" on the Official Plan,
  - (b) amend the Zoning By-law for the disposal site to restrict future uses,
  - (c) register a Notice on the title of the property with the Land Registrar which identifies the disposal site, the potential impacts and the restricted future uses,
  - (d) prohibit future residential development on the disposal site and a limited buffer zone around the site.
2. No further studies are required.

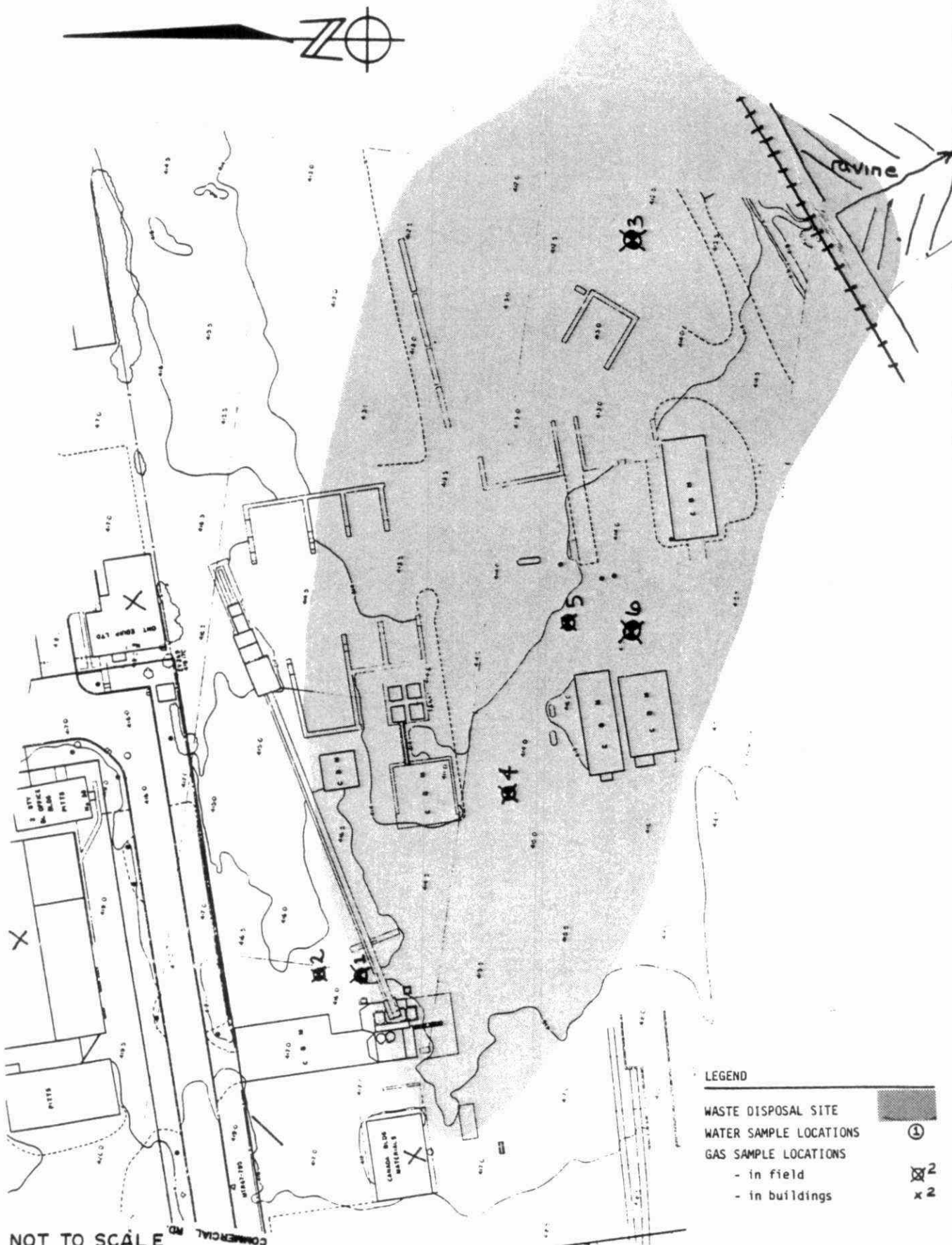
M-141278



SITE NO. 3028 East York  
COPELAND & Commercial

Morrison Beatty Limited  
Gore & Storrie Limited

M - 221080



# LEGEND

- WASTE DISPOSAL SITE
- WATER SAMPLE LOCATIONS
- GAS SAMPLE LOCATIONS
  - in field
  - in buildings

①  
2  
x 2

NOT TO SCALE

SITE NO. 3028 East York  
COPELAND & Commercial

Morrison Beatty Limited  
Gore & Storrie Limited





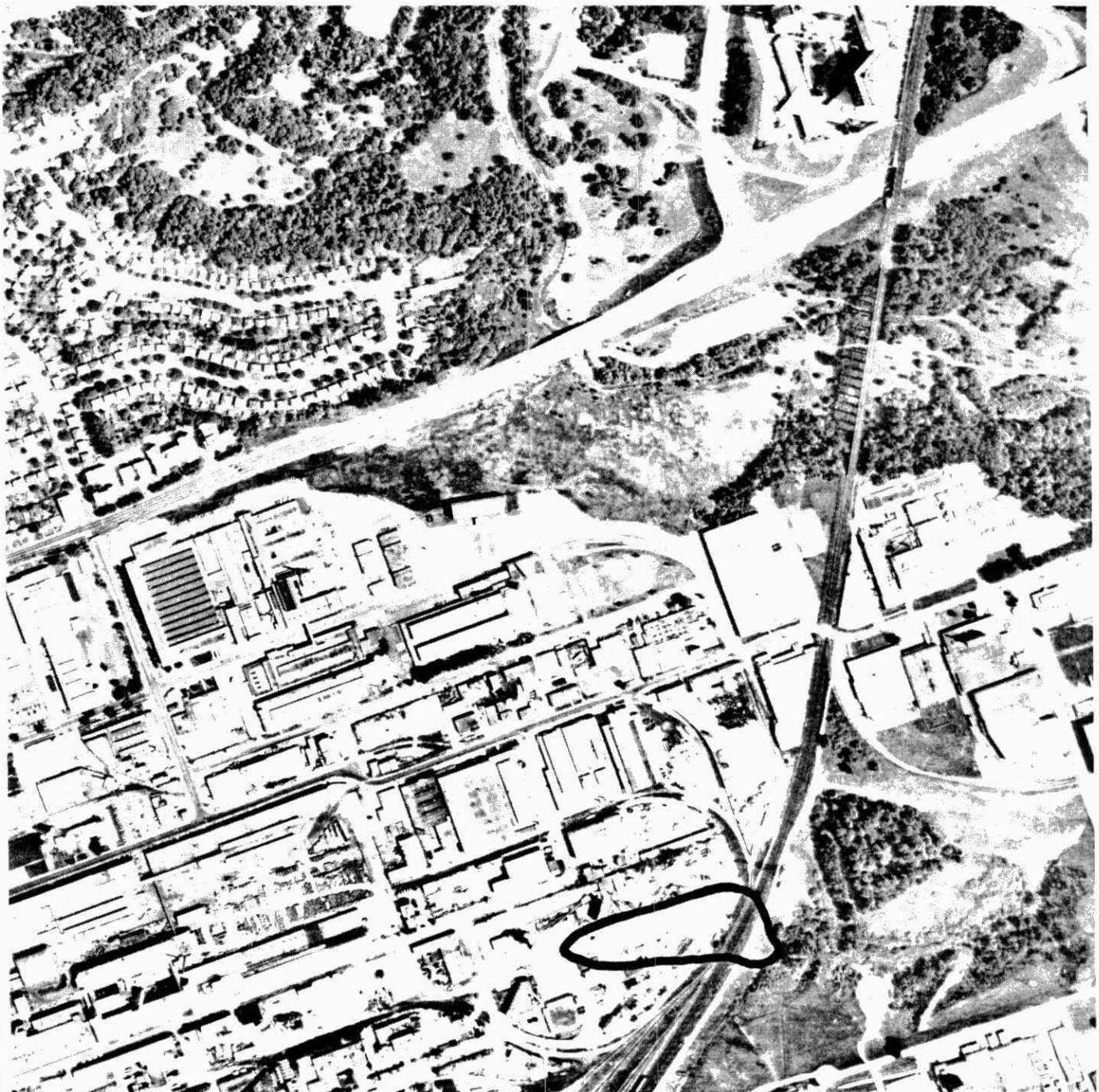
Ministry  
of the  
Environment

Ontario

# OLD WASTE DISPOSAL SITE STUDY

**SITE NO.**

**3028**



**Morrison Beatty Limited**  
**Gore & Storrie Limited**

DISPOSAL  
AREA



SCALE 1:6670





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Ontario

(To be completed in duplicate, 1 copy to MOE Regional office, 1 copy to MOE Head office)

FORM I  
(Site Identification Study)

### SITE INSPECTION

MOE REGION CENTRAL REGION

DATE Sept. 19, 1980

SITE IDENTIFICATION CODE 3028

SITE Copeland and Commercial

(Lot, concession #, or UTM coordinates, name, address)

#### ON-SITE TESTS

#### I Leachate

##### A. WATER BODIES WITHIN 100 METRES

Parameter

Results

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

##### B. WELLS WITHIN 100 METRES

Parameter

Results

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

Any significant odour problems Yes \_\_\_\_\_ No X Comments \_\_\_\_\_

#### LAB TESTS (2 LITRE SAMPLES)

Required, Yes \_\_\_\_\_ No X If Yes, complete Form II, Lab Analysis. If No, go to Part II, Gas.

#### II Gas

##### C. ON-SITE

##### D. BUILDINGS

Test

Test

Holes

Results

Holes

Results

Name/Address

Results

Name/Address

Results

#1

0%

#6

0%

1. Ontario Equipment

0%

6.

#2

0%

#7

2. Pitts Construction

0%

7.

#3

0%

#8

3. Canada Building Materials

0%

8.

#4

0%

#9

4.

9.

#5

1%

#10

5.

10.

III General Comments (vegetation, leachate springs, depth, etc.) \_\_\_\_\_

(Detail all test point locations in a sketch on reverse side)

Form completed by: Nancy Rennie





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# OLD WASTE DISPOSAL SITE STUDY

Site Number... 3038

Location..... GLEDHILL & HOLBORNE  
BOROUGH OF EAST YORK

Morrison Beatty Limited

Gore & Storrie Limited



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of the  
Environment

# OLD WASTE DISPOSAL SITE STUDY

SITE NO. 3038

LOCATION Gledhill  
& Holborne (Cedar-  
vale Park), East York

## Background

### Waste Disposal Practices

- Owned and operated as a sanitary landfill by the Township of East York from the late 1940's into the early 1950's.
- Most wastes were of domestic origin.
- Some incineration ashes were included.
- It appears that the landfill site is 9 hectares in area and is filled to an approximate peak height of 18 metres.
- It is estimated that 1.2 million cubic metres of material have been placed in the site.
- Information sources include various residents including Mr. Hancock of #457 Oak Park Avenue, and Messrs. H. Clark and F. Moffat of the Borough of East York.

### Land Uses

- Original**
- The area was originally a ravine.

### Present Development

**On - site**

- For the most part, the landfill site is parkland.
- The group of houses #457 and #455 Oak Park Avenue, and #960 Cosburn Avenue are situated on landfill.
- The Oak Park Avenue road allowance from Everett Cres. to Cosburn Avenue is situated on landfill.

**Abutting**

- North - Massey Creek Ravine.
- West - East York Arena, Stan Wadlow Clubhouse, public swimming pool, Parkside Public school.
- East - Nursing home on Haldon Avenue, residential housing on Cosburn Avenue.
- South - East York Sports Centre, residential buildings of Oak Park Road, Morrison Junior High School.

### Present Site Owner

- Borough of East York.

## Hydrogeologic Setting

### Geology

- regionally, the area is blanketed by sandy Lake Iroquois deposits
- fine sand and silt of the Thorncliffe Formation may occur beneath the thin surficial sands

### Regional Drainage

- the site is located in a former ravine on the south side of the Massey Creek valley
- the upland areas south of the site are serviced by storm sewers

## Disposal Site Detail

### Fill Characteristics

- the waste was deposited over a broad area which extended south beneath Oak Park Road
- the depth of the fill is uncertain, as no information was obtained regarding the size and shape of the old ravine
- it appears the southern part of fill is older than 45 years
- virtually all of the fill area is maintained

### Topography and Drainage

- the fill area slopes gently northward toward Massey Creek; a relatively steep embankment has been created around the north and east limits of the fill
- drainage in the south-central part of the site is only fair due to the flat playground surface; drainage in the northern area is good

M-141279

## Identified Impact

### Settlement & Erosion

- there are settlement depressions evident over most of the site; they are particularly obvious in the large paved lot at Gledhill Ave and Oak Park Road and on Oak Park Road itself
- there is no significant erosion at the site

### Vegetation Stress

- there are patches of decayed vegetation over most of Cedarvale Park, north of Oak Park Road

### Leachate

- there are several swampy areas below the lower slopes of the landfill which may receive leachate seepage; however, obvious signs of leachate were not noted

### Methane Gas

- methane gas was detected at several locations in Cedarvale Park; barholes placed along Oak Park Road and adjacent to the school recorded no methane
- no methane gas was detected in any of the monitored buildings

## Potential Impacts

- gas migration to the nursing home apartments on Haldon Ave and other homes and school buildings that abut the landfill

## Recommendations

1. The disposal site and future uses should be permanently identified as follows:
  - (a) identify the "limits of fill" on the Official Plan,
  - (b) amend the Zoning By-law for the disposal site to restrict future uses,
  - (c) register a Notice on the title of the property with the Land Registrar which identifies the disposal site, the potential impacts and the restricted future uses,
  - (d) prohibit future residential development on the disposal site and a limited buffer zone around this site.
2. The Part II study should be carried out to assess the potential impacts. The study should include the following:
  - i) installation of multi-depth gas probes as set out in the Table below,
  - ii) monitoring of gas probes for methane concentration and ground and atmospheric air pressure every two weeks from November to May, and
  - iii) monitoring of methane gas in abutting buildings if the concentration in the ground outside the foundation exceeds 5% by volume.
3. The results of the monitoring program should be assessed to determine:
  - i) if monitoring can be terminated, in the event of no apparent hazard,
  - ii) if monitoring should be continued, in the event of an identified potential hazard,
  - iii) if permanent gas controls should be installed, in the event of a hazardous impact, and
  - iv) minimum buffer zones for future development around the site.

| <u>LOCATION</u>                                                              | <u>ESTIMATED<br/>NUMBER</u> |
|------------------------------------------------------------------------------|-----------------------------|
| - in the vicinity of the foundations of the:<br>nursing home on Haldon Ave.  | 5                           |
| the arena west of the landfill                                               | 3                           |
| Sports Center on Gledhill Ave.                                               | 2                           |
| Boy's Home on Oak Park Road                                                  | 2                           |
| - in the backyards of the properties on Cosburn Ave.                         | 3                           |
| - in the frontyards of the properties on Oak Park Rd.                        | 7                           |
| - between the landfill area and the East York Board<br>of Education building | 1                           |

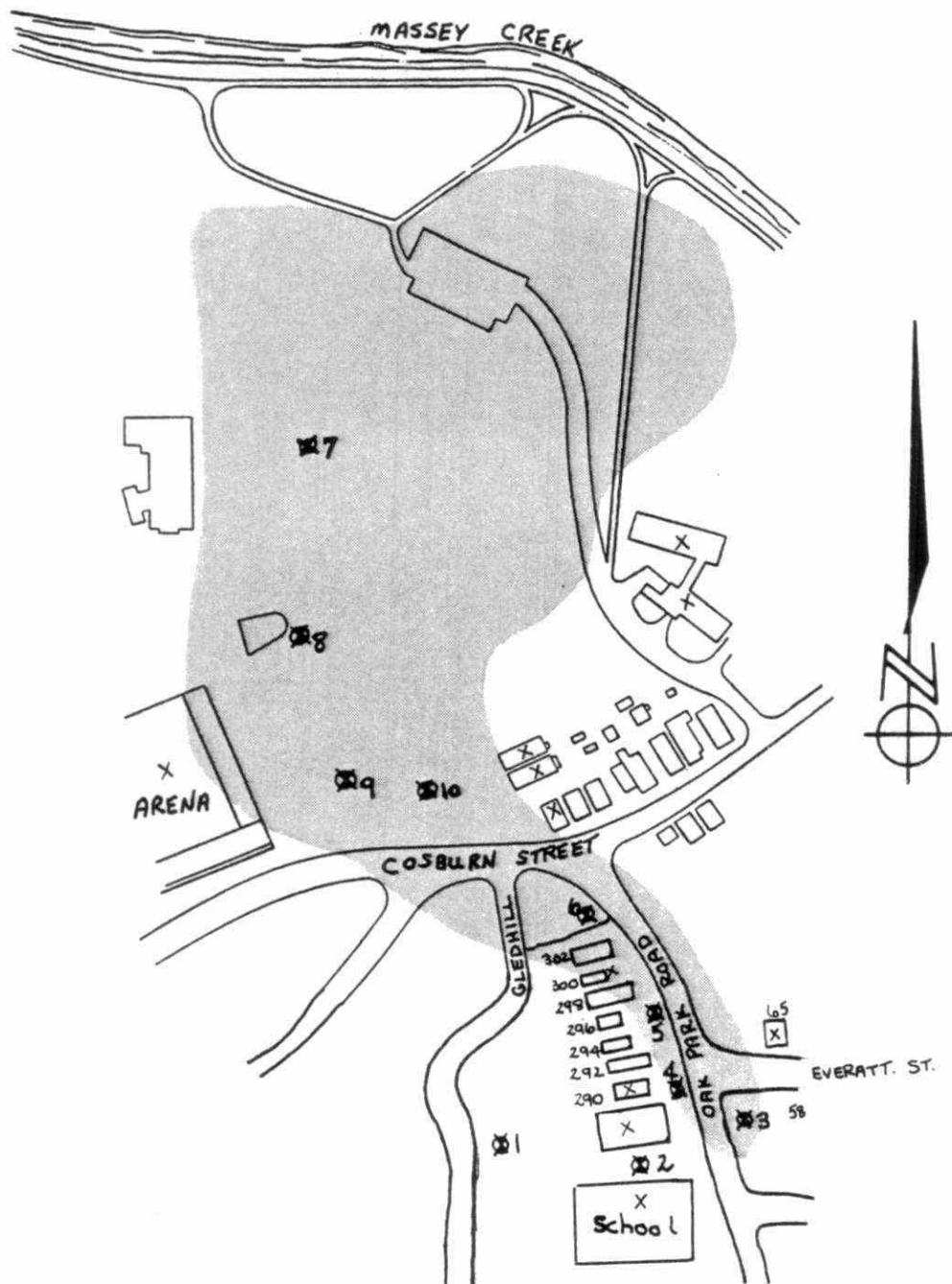




SITE NO. 3038 East York  
GLEDHILL & HOLBORNE

Morrison Beatty Limited  
Gore & Storrie Limited





LEGEND

- WASTE DISPOSAL SITE
- WATER SAMPLE LOCATIONS ①
- GAS SAMPLE LOCATIONS
  - in field X 2
  - in buildings x 2

NOT TO SCALE

SITE NO. 3038 East York  
GLEDHILL & HOLBORNE

Morrison Beatty Limited  
Gore & Storrie Limited



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Environment

# OLD WASTE DISPOSAL SITE STUDY

SITE NO.

3038



Morrison Beatty Limited  
Gore & Storrie Limited

DISPOSAL  
AREA



SCALE 1:10 000





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Environment  
Ontario

(To be completed in duplicate, 1 copy to MOE Regional office, 1 copy to MOE Head office)

FORM I  
(Site Identification Study)

### SITE INSPECTION

MOE REGION CENTRAL REGION DATE Sept. 23, 1980 SITE IDENTIFICATION CODE 3038  
SITE Gledhill and Holborne, East York  
(Lot, concession #, or UTM coordinates, name, address)

#### ON-SITE TESTS

#### I Leachate

A. WATER BODIES WITHIN 100 METRES None

Parameter

Results

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

B. WELLS WITHIN 100 METRES

Parameter

Results

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

Any significant odour problems Yes        No X Comments       

#### LAB TESTS (2 LITRE SAMPLES)

Required, Yes        No X If Yes, complete Form II, Lab Analysis. If No, go to Part II, Gas.

#### II Gas

C. ON-SITE

D. BUILDINGS

Test

Holes

Results

Test

Holes

Results

Name/Address

Results

Name/Address

Results

#1

0%

#6

0% (manhole)

1. 290 Oak Park Rd

0%

6. 300 Oak Park Rd

0%

#2

0%

#7

0%

2. 292 Oak Park Rd (no one home)

7. 65 Everatt St

0%

#3

0%

#8

12%

3. 294 Oak Park Rd (no one home)

8. 58 Everatt St (no one home)

0%

#4

0%

#9

15%

4. 296 Oak Park Rd (no one home)

9. Morrison Junior High

0%

#5

0%

#10

40%

5. 298 (could not understand English)

10. East York B. of Ed. Bldg.

0%

III General Comments (vegetation, leachate springs, depth, etc.)       

(Detail all test point locations in a sketch on reverse side)

Form completed by: Nancy Rennie



SITE INSPECTION

MOE REGION \_\_\_\_\_ DATE \_\_\_\_\_ SITE IDENTIFICATION CODE 3038 - Page 2

SITE Gledhill - Holborne, East York  
(Lot, concession #, or UTM coordinates, name, address)

ON-SITE TESTS

I Leachate

A. WATER BODIES WITHIN 100 METRES

Parameter

Results

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

B. WELLS WITHIN 100 METRES

Parameter

Results

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

Any significant odour problems Yes \_\_\_\_\_ No \_\_\_\_\_ Comments \_\_\_\_\_

LAB TESTS (2 LITRE SAMPLES)

Required, Yes \_\_\_\_\_ No \_\_\_\_\_ If Yes, complete Form II, Lab Analysis. If No, go to Part II, Gas.

II Gas

C. ON-SITE

D. BUILDINGS

| Test  |         | Test  |         |                                  |         |              |         |
|-------|---------|-------|---------|----------------------------------|---------|--------------|---------|
| Holes | Results | Holes | Results | Name/Address                     | Results | Name/Address | Results |
| # 11  | 0%      | #6    |         | 1. 9 Haldon Ave., nursing home   | 0%      | 6.           |         |
| # 12  | 0%      | #7    |         | 2 457 Oak Park Ave., Mr. Hancock | 0%      | 7.           |         |
| # 13  | 0%      | #8    |         | 3 455 Oak Park Ave.,             | 0%      | 8.           |         |
| # 14  | 0%      | #9    |         | 4. 960 Cosburn Ave.              | 0%      | 9.           |         |
| # 15  | 0%      | #10   |         | 5. Curling Rink                  | 0%      | 10.          |         |

III General Comments (vegetation, leachate springs, depth, etc.) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(Detail all test point locations in a sketch on reverse side)

Form completed by: Nancy Rennie



Ontario

Ministry  
of the  
Environment

# OLD WASTE DISPOSAL SITE STUDY

Site Number... 3040

Location..... LUMSDEN & EASTDALE  
BOROUGH OF EAST YORK

Morrison Beatty Limited

Gore & Storrie Limited





Ontario

Ministry  
of the  
Environment

# OLD WASTE DISPOSAL SITE STUDY

SITE NO. 3040

LOCATION

Lumsden & Eastdale

East York

## Background

### Waste Disposal Practices

- Operated for 1-2 years in the early 1950's by the former Township of East York.
- It is considered that mostly clean fill, with some sanitary wastes brought in periodically, were deposited in the area.
- Mr. H. Clark of East York recalls that the garbage was dumped for a small period of time, but discontinued due to the public complaints.
- The fill area is approximately .5 hectare with a possible peak depth of 10 metres.
- It is estimated that 40 thousand cubic metres of fill material were placed in the site.
- Information sources included Messrs. F. Moffat and H. Clark of the Works Department, Borough of East York.

### Land Uses

#### Original

- Comparison of air photos, old topographical maps and the existing terrain suggest that the area was originally part of an old ravine.

### Present Development

#### On - site

- Currently a paved parking lot.
- A portion of Lumsden Avenue and a bench park.
- A portion of townhouses of Lumsden Avenue and Eastdale.

#### Abutting

- North - Hydro electric corridor and Taylor's Bush Park.
- West - A highrise apartment building (#444 East and West Lumsden Towers); the highrises are built on pillars.
- South - Residential townhouses.
- East - Lumsden Avenue and a highrise building (#75 Eastdale).

### Present Site Owner

- Privately owned properties of individual residents.
- The Ontario Housing Corporation.



## Hydrogeologic Setting

### Geology

- regionally, the area is blanketed by sandy Lake Iroquois deposits
- fine sand and silt of the Thorncliffe Formation may occur beneath the thin surficial sands

### Regional Drainage

- the site is located in a former ravine which extended several hundred metres south of the main Massey Creek valley; a section of the ravine is still evident south of Lumsden Ave.
- the upland areas south of the site are serviced by storm sewers

## Disposal Site Detail

### Fill Characteristics

- the full extent of the landfill could not be ascertained from East York staff; however, it appears to extend southward from the HEPC line (see figure) to the remnant of the old ravine (south of Lumsden )
- the underground parking garage at 444 Lumsden Ave. may be constructed in or adjacent the fill; also the townhouses south of Lumsden St may be on the disposal site

### Topography and Drainage

- the surface of the landfill is flat, with 3:1 slopes at the north (and south?) limits
- if there is no storm drain in the old ravine (now a closed, 7 m deep depression) there may be considerable groundwater flow-through beneath the fill site

## Identified Impact

### Settlement & Erosion

- there was evidence of minor settlement in the most easterly parking lot at 444 Lumsden Ave (this lot is not above the underground garage)
- there was no evidence of settlement beneath Lumsden Ave.
- there was no significant erosion

### Vegetation Stress

- there were no significant signs of vegetation stress

### Leachate

- there was no evidence of leachate seepage at the toe of the fill

### Methane Gas

- there were no measurements of methane in any of the barholes or monitored buildings

## Potential Impacts

- the ventilated underground parking garage beneath the apartments at 444 Lumsden Ave. should eliminate any methane hazard at that location
- if organic wastes were deposited south of Lumsden a potential for gas migration to the townhouses in that area

## Recommendations

1. The disposal site and future uses should be permanently identified as follows:
  - (a) identify the "limits of fill" on the Official Plan,
  - (b) amend the Zoning By-law for the disposal site to restrict future uses,
  - (c) register a Notice on the title of the property with the Land Registrar which identifies the disposal site, the potential impacts and the restricted future uses,
  - (d) prohibit future residential development on the disposal site and a limited buffer zone around this site.
2. The Part II study should be carried out to assess the potential impacts. The study should include the following:
  - i) installation of multi-depth gas probes as set out in the Table below,
  - ii) monitoring of gas probes for methane concentration and ground and atmospheric air pressure every two weeks from November to May, and
  - iii) monitoring of methane gas in abutting buildings if the concentration in the ground outside the foundation exceeds 5% by volume.
3. The results of the monitoring program should be assessed to determine:
  - i) if monitoring can be terminated, in the event of no apparent hazard,
  - ii) if monitoring should be continued, in the event of an identified potential hazard,
  - iii) if permanent gas controls should be installed, in the event of a hazardous impact,
  - iv) minimum buffer zones for future development around the site.
4. The construction history of on-site and near-site buildings should be reviewed. The following should be examined:
  - i) soil investigation reports,
  - ii) reports of waste materials encountered during construction,
  - iii) plans of foundation design,
  - iv) details of special gas control systems, if any, and
  - v) details of gas monitoring program, if any.

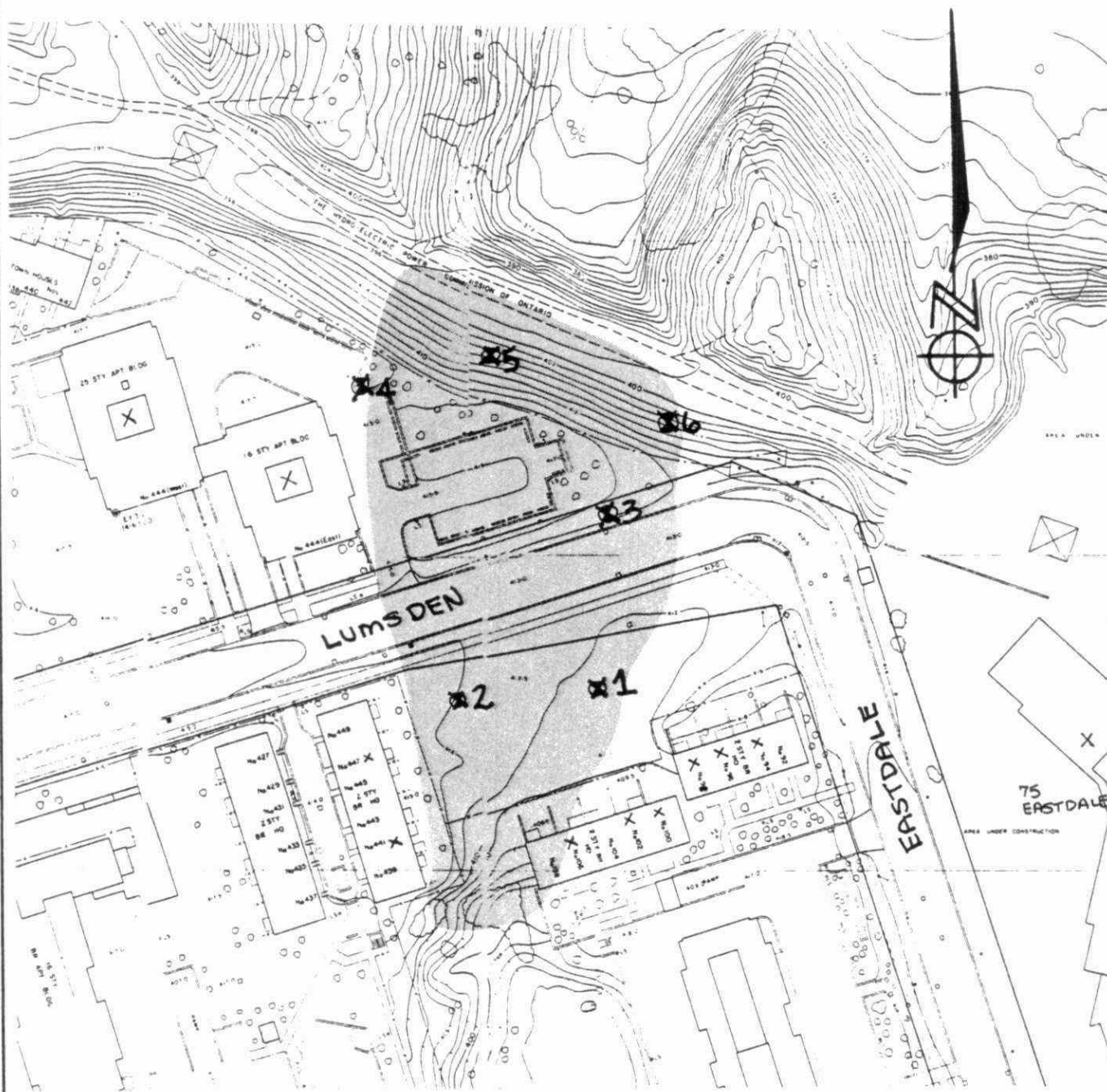
| <u>LOCATION</u>                                                                                      | <u>ESTIMATED<br/>NUMBER</u> |
|------------------------------------------------------------------------------------------------------|-----------------------------|
| - around the foundations of the townhouses at 439 to 447 Lumsden Ave. and at 92 to 104 Eastdale Ave. | 8                           |
| - the perimeter of 444 Lumsden Ave., East and West Towers                                            | 8                           |



SITE NO. 3040/East York  
LUMSDEN & EASTDALE

Morrison Beatty Limited  
Gore & Storrie Limited

M-221080



#### LEGEND

- WASTE DISPOSAL SITE 
- WATER SAMPLE LOCATIONS  ①
- GAS SAMPLE LOCATIONS
  - in field  2
  - in buildings x 2

NOT TO SCALE

SITE NO. 3040/East York  
LUMSDEN & EASTDALE

Morrison Beatty Limited  
Gore & Storrie Limited





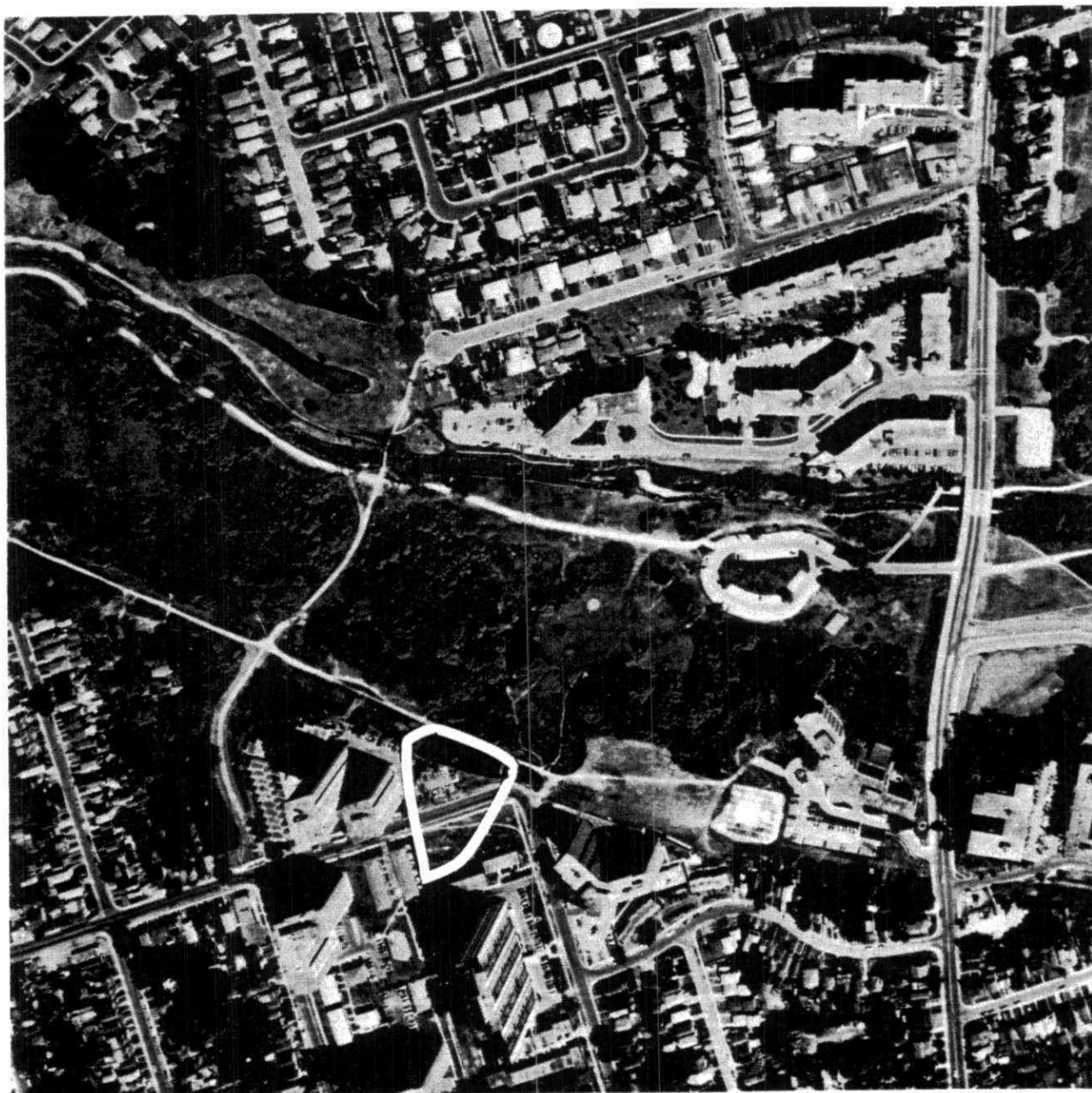
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# OLD WASTE DISPOSAL SITE STUDY

SITE NO.

3040



Morrison Beatty Limited  
Gore & Storrie Limited

DISPOSAL  
AREA



SCALE 1:4500







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(To be completed in duplicate, 1 copy to MOE Regional office, 1 copy to MOE Head office)

FORM I  
(Site Identification Study)

### SITE INSPECTION

MOE REGION CENTRAL REGION DATE Sept. 23, 1980 SITE IDENTIFICATION CODE 3040

SITE Lumsden and Eastdale, East York  
(Lot, concession #, or UTM coordinates, name, address)

#### ON-SITE TESTS

##### I Leachate

A. WATER BODIES WITHIN 100 METRES None

Parameter

Results

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

B. WELLS WITHIN 100 METRES

Parameter

Results

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

Any significant odour problems Yes        No X Comments       

#### LAB TESTS (2 LITRE SAMPLES)

Required, Yes        No X If Yes, complete Form II, Lab Analysis. If No, go to Part II, Gas.

##### II Gas

C. ON-SITE

D. BUILDINGS

Test

Test

Holes

Results

Holes

Results

Name/Address

Results

Name/Address

Results

#1

0%

#6

0%

1.444 Lumsden East Tower

0%

6.451 Lumsden

0%

#2

0%

#7

2.444 Lumsden West Tower

0%

7.441 Lumsden

0%

#3

0%

#8

3.75 Eastdale (apt)

0%

8.443 Lumsden (no one home)

#4

0%

#9

4.449 Lumsden (no one home)

9.439 Lumsden (no one home)

#5

0%

#10

5.447 Lumsden

0%

10.100 Eastdale

0%

III General Comments (vegetation, leachate springs, depth, etc.)       

(Detail all test point locations in a sketch on reverse side)

Form completed by: Nancy Rennie



SITE INSPECTION

MOE REGION \_\_\_\_\_ DATE \_\_\_\_\_ SITE IDENTIFICATION CODE 3040 - Page 2

SITE Lumsden and Eastdale cont'd  
(Lot, concession #, or UTM coordinates, name, address)

ON-SITE TESTS

I Leachate

A. WATER BODIES WITHIN 100 METRES

Parameter

Results

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

B. WELLS WITHIN 100 METRES

Parameter

Results

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

Any significant odour problems Yes \_\_\_\_\_ No \_\_\_\_\_ Comments \_\_\_\_\_

LAB TESTS (2 LITRE SAMPLES)

Required, Yes \_\_\_\_\_ No \_\_\_\_\_ If Yes, complete Form II, Lab Analysis. If No, go to Part II, Gas.

II Gas

C. ON-SITE

D. BUILDINGS

Test

Test

Holes Results

Holes Results

#1 \_\_\_\_\_  
#2 \_\_\_\_\_  
#3 \_\_\_\_\_  
#4 \_\_\_\_\_  
#5 \_\_\_\_\_

#6 \_\_\_\_\_  
#7 \_\_\_\_\_  
#8 \_\_\_\_\_  
#9 \_\_\_\_\_  
#10 \_\_\_\_\_

Name/Address

Results

1. 102 Eastdale  
2. 104 Eastdale (no English)  
3. 106 Eastdale  
4. 92 Eastdale (no one home)  
5. 94 Eastdale

0%  
0%  
0%  
0%  
0%

Name/Address

Results

6. 96 Eastdale  
7. 98 Eastdale  
8. \_\_\_\_\_  
9. \_\_\_\_\_  
10. \_\_\_\_\_

0%  
0%  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

III General Comments (vegetation, leachate springs, depth, etc.) \_\_\_\_\_

(Detail all test point locations in a sketch on reverse side)

Form completed by: Nancy Rennie



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# OLD WASTE DISPOSAL SITE STUDY

Site Number... 3041

Location..... GOODWOOD PARK  
BOROUGH OF EAST YORK

Morrison Beatty Limited

Gore & Storrie Limited



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Environment

# OLD WASTE DISPOSAL SITE STUDY

SITE NO. 3041

LOCATION Goodwood

Park & Dawes Road

East York

## Background

### Waste Disposal Practices

- Operated from the late 1940's to early 1950 by the former Township of East York.
- Sanitary wastes with considerable quantities of construction debris were deposited in the area.
- The site is just under a hectare in area and it is estimated that 30 thousand cubic metres of fill were placed in the area.
- Information sources included Mr. Fred Moffat of the Works Department, Borough of East York.

### Land Uses

#### Original

- Comparison of air photos, old topographical maps and the existing terrain suggest that the area was originally the mouth of an old ravine which discharged into Massey Creek.

### Present Development

#### On - site

- Open space.
- Presently the site serves as a hydro corridor.

#### Abutting

- North - Taylor's Bush Park.
- East - The True Davidson Acres Senior Citizens Residence building and adjacent parking lot.
  - The Hydro Transformer Station.
- South - A highrise apartment dwelling (#75 Eastdale Avenue).
- West - Open space and highrise apartments on Lumsden Avenue.

### Present Site Owner

- Metropolitan Toronto and Region Conservation Authority.
- Ontario Hydro.
- Apartment property - owned by 441327 Ontario Ltd.
  - managed by Winzen Real Estate Ltd.

Morrison Beatty Limited | Gore & Storrie Limited

## Hydrogeologic Setting

### Geology

- regionally, the area is blanketed by sandy Lake Iroquois deposits

### Regional Drainage

- the disposal site is on the valley slopes of Massey Creek
- all upland areas are serviced by storm sewers

## Disposal Site Detail

### Fill Characteristics

- the waste has been landfilled in two separate plateaus at the site; the upper level abuts an apartment at 75 Eastdale Ave, the lower level is in parkland along the Massey Creek valley
- both sites are maintained and considerable tree growth has been established on the outer steep embankments

### Topography and Drainage

- the surface of each plateau slopes gently northward toward the creek; each plateau averages about 7 m above original grade
- the outer embankments of the two sites are sloped at about a 2:1 grade
- drainage is good at each site

M-141278

## Identified Impact

### Settlement & Erosion

- the site consists of two flat, open field areas
- the largest field ends abruptly in a steep, tree lined slope; there is some evidence of erosion on this slope
- settlement depressions were observed in the smaller field which is lower and in the Massey Creek floodplain

### Vegetation Stress

- a few minor areas of vegetation stress were noted in the upper fill site only

### Leachate

- there was no evidence of leachate seepage
- no measurable impact on the water quality of Massey Creek

### Methane Gas

- no methane gas was detected at this site or in the monitored buildings

## Potential Impacts

- although gas migration into the parking garage below the apartment at 75 Eastdale Ave. is possible, there should be adequate ventilation to alleviate any hazard
- gas migration could occur into the swimming pool room attached to the east side of the above apartment

M-141279



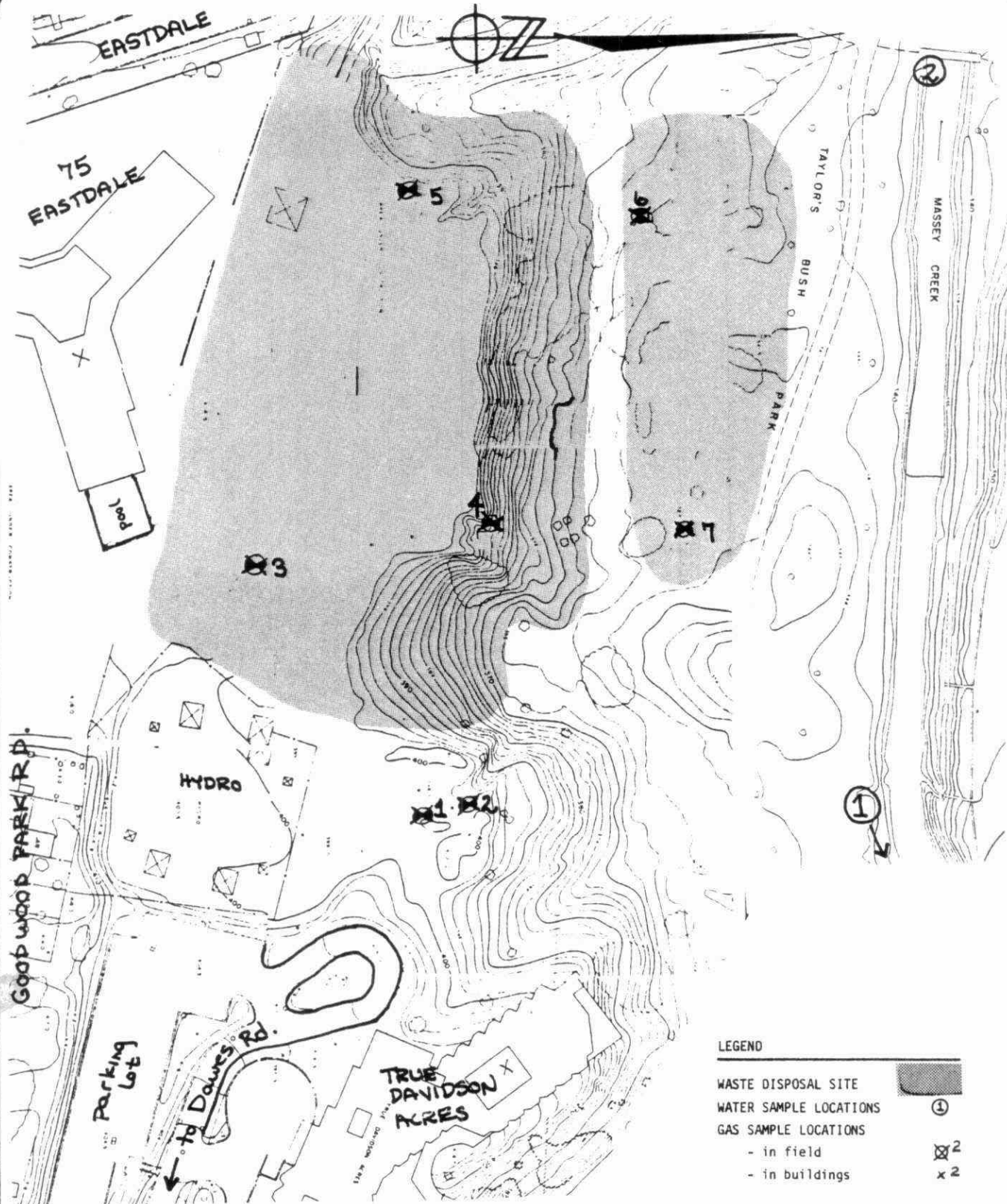
## Recommendations

1. The disposal site and future uses should be permanently identified as follows:
  - (a) identify the "limits of fill" on the Official Plan,
  - (b) amend the Zoning By-law for the disposal site to restrict future uses,
  - (c) register a Notice on the title of the property with the Land Registrar which identifies the disposal site, the potential impacts and the restricted future uses,
  - (d) prohibit future residential development on the disposal site and a limited buffer zone around this site.
2. The Part II study should be carried out to assess the potential impacts. The study should include the following:
  - i) installation of multi-depth gas probes as set out in the Table below,
  - ii) monitoring of gas probes for methane concentration and ground and atmospheric air pressure every two weeks from November to May, and
  - iii) monitoring of methane gas in abutting buildings if the concentration in the ground outside the foundation exceeds 5% by volume.
3. The results of the monitoring program should be assessed to determine:
  - i) if monitoring can be terminated, in the event of no apparent hazard,
  - ii) if monitoring should be continued, in the event of an identified potential hazard,
  - iii) if permanent gas controls should be installed, in the event of a hazardous impact,
  - iv) minimum buffer zones for future development around the site.
4. The construction history of on-site and near-site buildings should be reviewed. The following should be examined:
  - i) soil investigation reports,
  - ii) reports of waste materials encountered during construction,
  - iii) plans of foundation design,
  - iv) details of special gas control systems, if any, and
  - v) details of gas monitoring program, if any.

| <u>LOCATION</u>                                                                            | <u>ESTIMATED<br/>NUMBER</u> |
|--------------------------------------------------------------------------------------------|-----------------------------|
| - near the foundation of the apartment building at 75 Eastdale Avenue which abuts the site | 2                           |
| - between the fill site and the swimming pool room at 75 Eastdale Avenue                   | 2                           |



M-221080



NOT TO SCALE

**SITE NO. 3041**  
**GOODWOOD PARK**

**EAST**  
**YORK**

**Morrison Beatty Limited**  
**Gore & Storrie Limited**





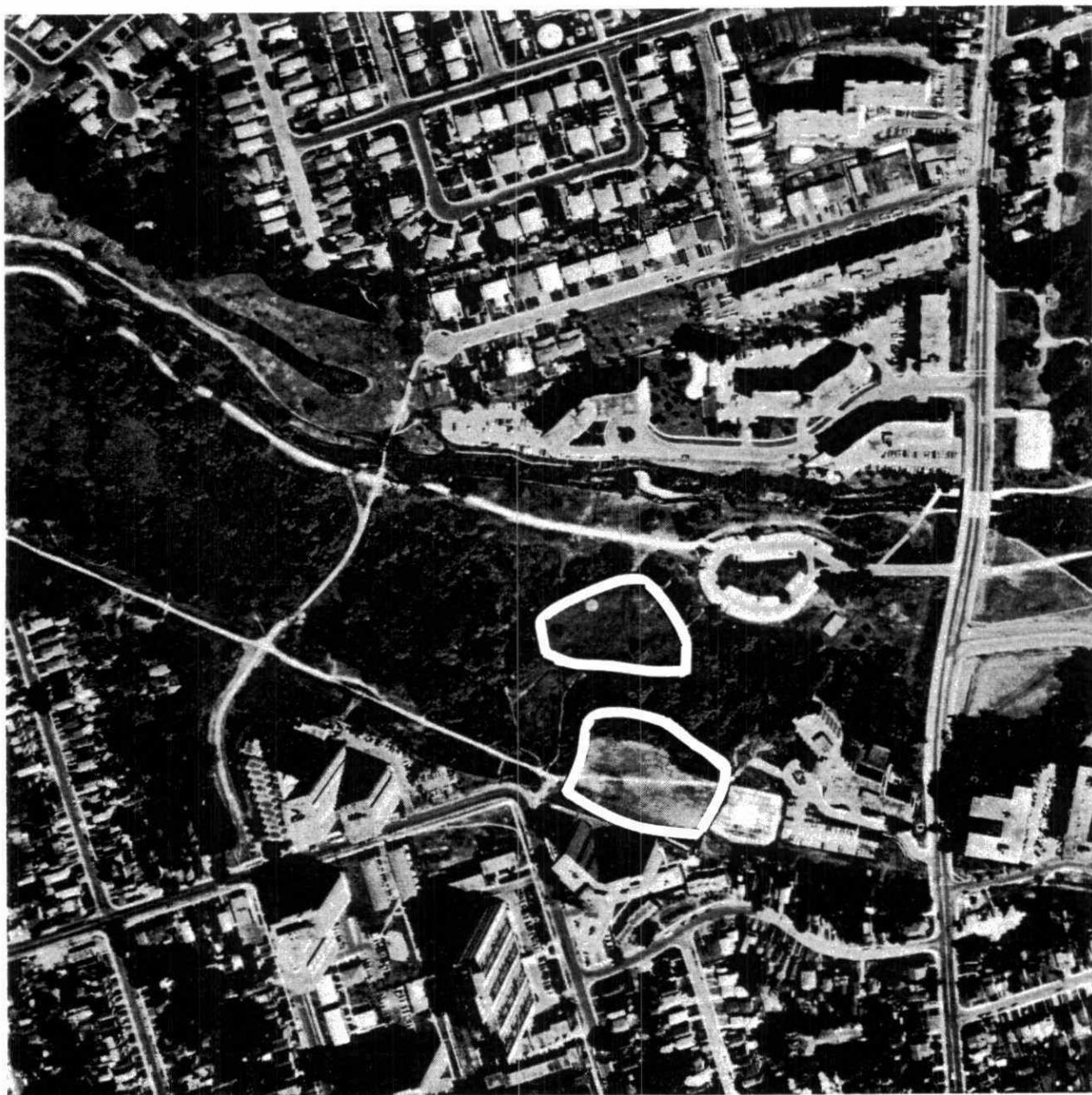
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# OLD WASTE DISPOSAL SITE STUDY

SITE NO.

3041



Morrison Beatty Limited  
Gore & Storrie Limited

DISPOSAL  
AREA



SCALE 1:4500





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(To be completed in duplicate, 1 copy to MOE Regional office, 1 copy to MOE Head office)

FORM I  
(Site Identification Study)

### SITE INSPECTION

MOE REGION CENTRAL REGION DATE Sept. 23, 1980 SITE IDENTIFICATION CODE 3041  
SITE Goodwood Park Rd and Dawes Rd, East York  
(Lot, concession #, or UTM coordinates, name, address)

#### ON-SITE TESTS

##### I Leachate

###### A. WATER BODIES WITHIN 100 METRES

Parameter mg/l

|                            | Results |     |   |   |   |   |   |   |   |    |
|----------------------------|---------|-----|---|---|---|---|---|---|---|----|
|                            | 1       | 2   | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1) Chlorides               | 183     | 183 |   |   |   |   |   |   |   |    |
| 2) pH                      | 7       | 7   |   |   |   |   |   |   |   |    |
| 3) Iron                    | 14      | 10  |   |   |   |   |   |   |   |    |
| 4) Alkalinity              | 137     | 137 |   |   |   |   |   |   |   |    |
| 5) Conductivity $\mu$ mhos | 460     | 450 |   |   |   |   |   |   |   |    |

###### B. WELLS WITHIN 100 METRES

Parameter

|                     | Results |   |   |   |   |   |   |   |   |    |
|---------------------|---------|---|---|---|---|---|---|---|---|----|
|                     | 1       | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1) Chlorides        |         |   |   |   |   |   |   |   |   |    |
| 2) Dissolved solids |         |   |   |   |   |   |   |   |   |    |
| 3) Iron             |         |   |   |   |   |   |   |   |   |    |
| 4) Alkalinity       |         |   |   |   |   |   |   |   |   |    |
| 5) Conductivity     |         |   |   |   |   |   |   |   |   |    |

Any significant odour problems Yes \_\_\_\_\_ No X Comments \_\_\_\_\_

#### LAB TESTS (2 LITRE SAMPLES)

Required, Yes \_\_\_\_\_ No X If Yes, complete Form II, Lab Analysis. If No, go to Part II, Gas.

##### II Gas

###### C. ON-SITE

| Test  | Results | Test  | Results |
|-------|---------|-------|---------|
| Holes |         | Holes |         |
| #1    | 0%      | #6    | 0%      |
| #2    | 0%      | #7    | 0%      |
| #3    | 0%      | #8    |         |
| #4    | 0%      | #9    |         |
| #5    | 0%      | #10   |         |

###### D. BUILDINGS

| Name/Address           | Results | Name/Address | Results |
|------------------------|---------|--------------|---------|
| 1. True Davidson Apts. | 0%      | 6.           |         |
| 2. 75 Eastdale (apt)   | 0%      | 7.           |         |
| 3.                     |         | 8.           |         |
| 4.                     |         | 9.           |         |
| 5.                     |         | 10.          |         |

III General Comments (vegetation, leachate springs, depth, etc.) \_\_\_\_\_

(Detail all test point locations in a sketch on reverse side)

Form completed by: Nancy Rennie



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# OLD WASTE DISPOSAL SITE STUDY

Site Number... 3043

Location..... PARK VISTA & DAWES ROAD  
BOROUGH OF EAST YORK

Morrison Beatty Limited

Gore & Storrie Limited





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# OLD WASTE DISPOSAL SITE STUDY

SITE NO. 3043

LOCATION Park

Vista & Dawes Road

East York

## Background

### Waste Disposal Practices

- Operated as a clean fill disposal area by the Borough of East York.
- Members interviewed from the Borough of East York could not recall any solid wastes being disposed at this site unless the odd unknown load was dumped on the site.
- The total area is approximately 5 hectares in size.
- At least one house is experiencing serious problems of settling. An engineering report by McNaughton Engineering for the homeowner suggested that all adjacent houses are on unstable soil.
- Borough of East York suggest that a pond on the Massey Estate on the east side of Dawes Road was used for domestic solid waste disposal.
- Information sources were Messrs. H. Clark and F. Moffat of the Borough of East York.

### Land Uses

#### Original

- The original site was a low marshy creek bed that formally was part of the Massey Creek system.

## Present Development

#### On - site

- Four highrise buildings and adjacent parking lots and road allowances exist on site.
- Open space, parkland.

#### Abutting

- |              |                                                   |
|--------------|---------------------------------------------------|
| North        | - Highrise apartments.                            |
|              | - Halsey Avenue residences - semi-detached homes. |
| East         | - Dawes Road.                                     |
| South & West | - Taylor Bush Park and Massey Creek.              |

## Present Site Owner

- The owners of the four highrise buildings.
- Metropolitan Toronto and Region Conservation Authority.

Morrison Beatty Limited | Gore & Storrie Limited

## Hydrogeologic Setting

### Geology

- regionally, the area is blanketed by sandy Lake Iroquois deposits
- locally, in low-lying portions of the site, there may be recent river deposits of sand and gravel

### Regional Drainage

- the disposal site abuts Massey Creek
- all upland areas at the site are serviced by storm sewers

## Disposal Site Detail

### Fill Characteristics

- the refuse was placed in low-lying areas along Massey Creek
- the Park Vista apartments are all elevated above the ground, with only the entrance area at ground level
- pavement covers about 50% of the disposal site

### Topography and Drainage

- the top of most of the fill areas has been graded to a flat surface
- areas that are paved drain to the storm sewer system
- vegetated sites drain to Massey Creek

## Identified Impact

### Settlement & Erosion

- there were settlement hollows present over much of the sites including the extensive, paved parking lots
- the Park Vista apartments show no signs of structure damage due to settlement; however, several townhouses at the west end of the site have extensive damage

### Vegetation Stress

- a few patches of decayed vegetation were present on the sites

### Leachate

- leachate and leachate iron staining were observed in the sand along the north bank of Massey Creek; this was located immediately west of the apartment building south of Park Vista Crescent

### Methane Gas

- although vegetation stress was observed, no methane was detected at any of the barhole locations

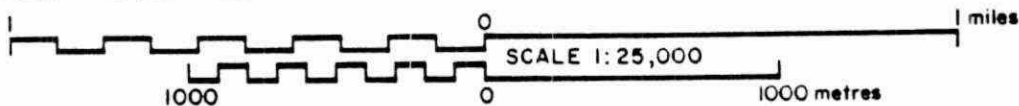
## Potential Impacts

- gas migration to residential homes which abut the filled lands

## Recommendations

1. The disposal site and future uses should be permanently identified as follows:
  - (a) identify the "limits of fill" on the Official Plan,
  - (b) amend the Zoning By-law for the disposal site to restrict future uses,
  - (c) register a Notice on the title of the property with the Land Registrar which identifies the disposal site, the potential impacts and the restricted future uses,
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  - ii) if monitoring should be continued, in the event of an identified potential hazard,
  - iii) if permanent gas controls should be installed, in the event of a hazardous impact,
  - iv) minimum buffer zones for future development around the site.
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  - iii) plans of foundation design,
  - iv) details of special gas control systems, if any, and
  - v) details of gas monitoring program, if any.

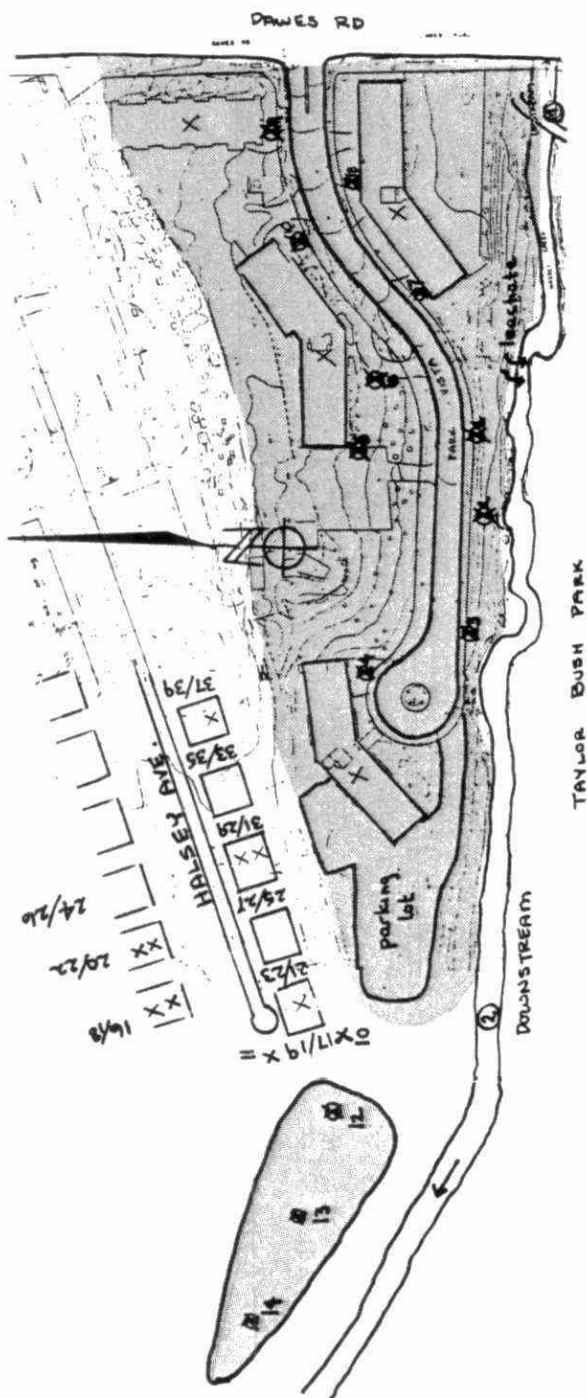
| <u>LOCATION</u>                                                    | <u>ESTIMATED<br/>NUMBER</u> |
|--------------------------------------------------------------------|-----------------------------|
| - between the disposal site and abutting homes<br>on Halsey Avenue | 7                           |



SITE NO. 3043  
PARK VISTA EAST YORK

Morrison Beatty Limited  
Gore & Storrie Limited





### LEGEND

WASTE DISPOSAL SITE  
WATER SAMPLE LOCATIONS  
GAS SAMPLE LOCATIONS  
- in field  
- in buildings

①

$$\begin{array}{l} \otimes^2 \\ \times^2 \end{array}$$

NOT TO SCALE

SITE NO. 3043  
PARK VISTA EAST YORK

Morrison Beatty Limited  
Gore & Storrie Limited



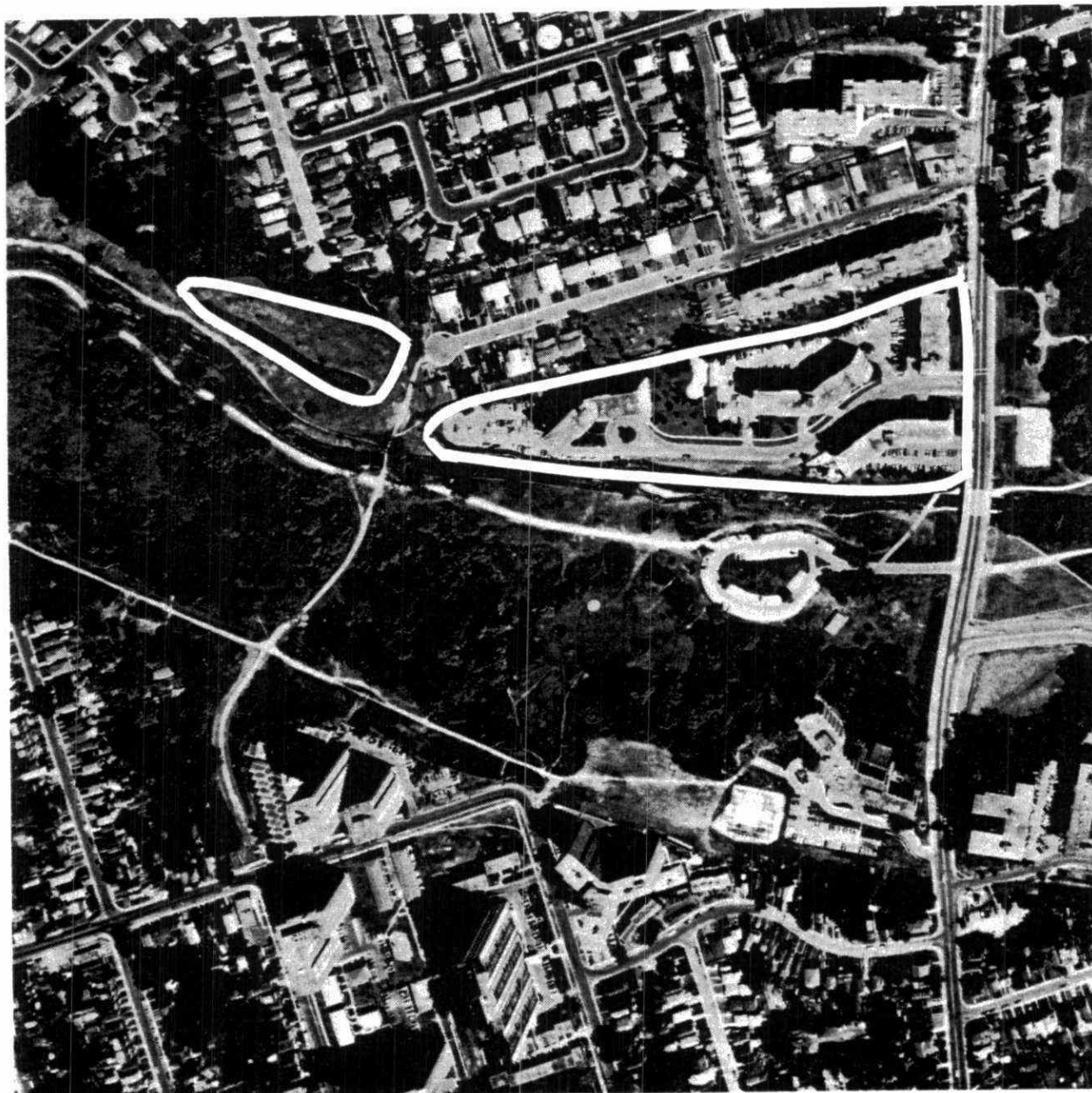
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# OLD WASTE DISPOSAL SITE STUDY

SITE NO.

3043



Morrison Beatty Limited  
Gore & Storrie Limited

DISPOSAL  
AREA



SCALE 1:4500





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(To be completed in duplicate, 1 copy to MOE Regional office, 1 copy to MOE Head office)

FORM I  
(Site Identification Study)

### SITE INSPECTION

MOE REGION CENTRAL REGION DATE Sept. 23, 1980 SITE IDENTIFICATION CODE 3043

SITE Park Vista and Dawes Road, East York  
(Lot, concession #, or UTM coordinates, name, address)

#### ON-SITE TESTS

##### I Leachate

###### A. WATER BODIES WITHIN 100 METRES

| Parameter       | mg/l  | Results |     |   |   |   |   |   |   |   |    |
|-----------------|-------|---------|-----|---|---|---|---|---|---|---|----|
|                 |       | 1       | 2   | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1) Chlorides    |       | 183     | 183 |   |   |   |   |   |   |   |    |
| 2) pH           |       | 7       | 7   |   |   |   |   |   |   |   |    |
| 3) Iron         |       | .14     | .10 |   |   |   |   |   |   |   |    |
| 4) Alkalinity   |       | 137     | 137 |   |   |   |   |   |   |   |    |
| 5) Conductivity | µmhos | 460     | 450 |   |   |   |   |   |   |   |    |

###### B. WELLS WITHIN 100 METRES

| Parameter           | Results |   |   |   |   |   |   |   |   |    |
|---------------------|---------|---|---|---|---|---|---|---|---|----|
|                     | 1       | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1) Chlorides        |         |   |   |   |   |   |   |   |   |    |
| 2) Dissolved solids |         |   |   |   |   |   |   |   |   |    |
| 3) Iron             |         |   |   |   |   |   |   |   |   |    |
| 4) Alkalinity       |         |   |   |   |   |   |   |   |   |    |
| 5) Conductivity     |         |   |   |   |   |   |   |   |   |    |

Any significant odour problems Yes ☐ No ☒ Comments \_\_\_\_\_

#### LAB TESTS (2 LITRE SAMPLES)

Required, Yes ☐ No ☒ If Yes, complete Form II, Lab Analysis. If No, go to Part II, Gas.

##### II Gas

###### C. ON-SITE

| Test  | Results | Test  | Results |
|-------|---------|-------|---------|
| Holes |         | Holes |         |
| #1    | 0%      | #6    | 0%      |
| #2    | 0%      | #7    | 0%      |
| #3    | 0%      | #8    | 0%      |
| #4    | 0%      | #9    | 0%      |
| #5    | 0%      | #10   | 0%      |

###### D. BUILDINGS

| Name/Address            | Results | Name/Address       | Results                     |
|-------------------------|---------|--------------------|-----------------------------|
| 1. 142 Park Vista (apt) | 0%      | 6. 19 Halsey Ave.  | (no one home)               |
| 2. 6 Park Vista (apt)   | 0%      | 7. 21 Halsey Ave.  | (no one home)               |
| 3. 7 Park Vista (apt)   | 0%      | 8. 23 Halsey Ave.  | (no one home)               |
| 4. 8 Park Vista (apt)   | 0%      | 9. 25 Halsey Ave.  | (no one home)               |
| 5. 17 Halsey Ave.       | 0%      | 10. 27 Halsey Ave. | (didn't understand English) |

III General Comments (vegetation, leachate springs, depth, etc.) \_\_\_\_\_

(Detail all test point locations in a sketch on reverse side)

Form completed by: Nancy Rennie



SITE INSPECTION

MOE REGION \_\_\_\_\_ DATE \_\_\_\_\_ SITE IDENTIFICATION CODE 3043 - Page 2

SITE Park Vista and Dawes Road, East York  
(Lot, concession #, or UTM coordinates, name, address)

ON-SITE TESTS

I Leachate

A. WATER BODIES WITHIN 100 METRES

Parameter

Results

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

B. WELLS WITHIN 100 METRES

Parameter

Results

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

Any significant odour problems Yes \_\_\_\_\_ No \_\_\_\_\_ Comments \_\_\_\_\_

LAB TESTS (2 LITRE SAMPLES)

Required, Yes \_\_\_\_\_ No \_\_\_\_\_ If Yes, complete Form II, Lab Analysis. If No, go to Part II, Gas.

II Gas

C. ON-SITE

D. BUILDINGS

Test

Holes Results

#11 0%  
#12 0%  
#13 0%  
#14 0%  
#15 0%

Test

Holes Results

#6 \_\_\_\_\_  
#7 \_\_\_\_\_  
#8 \_\_\_\_\_  
#9 \_\_\_\_\_  
#10 \_\_\_\_\_

Name/Address

1. 29 Halsey Ave. 0%  
2. 31 Halsey Ave. 0%  
3. 33 Halsey Ave. (no one home)  
4. 35 Halsey Ave. (no one home)  
5. 37 Halsey Ave. 0%

Results

Name/Address

6. 39 Halsey Ave. (no one home)  
7. 20 Halsey Ave. 0%  
8. 22 Halsey Ave. 0%  
9. 24 Halsey Ave. (no one home)  
10. 16 Halsey Ave. 0%  
11. 18 Halsey Ave. 0%

Results

III General Comments (vegetation, leachate springs, depth, etc.) \_\_\_\_\_

(Detail all test point locations in a sketch on reverse side)

Form completed by: Nancy Rennie



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# OLD WASTE DISPOSAL SITE STUDY

Site Number... 3044

Location..... ST. CLAIR & WOODBINE  
BOROUGH OF EAST YORK

Morrison Beatty Limited

Gore & Storrie Limited





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of the  
Environment

# OLD WASTE DISPOSAL SITE STUDY

SITE NO. 3044

LOCATION St. Clair  
& Woodbine Hts. Blvd.  
East York

## Background

### Waste Disposal Practices

- Operated by the former Township of East York in the 1950's as a solid waste disposal site.
- Part of the site settled towards the ravine and was subsequently refilled with clean fill in the last 10 years.
- The site is roughly 1 hectare in size.
- Information sources were Messrs. F. Moffat and H. Clark of the Works Department, Borough of East York.

### Land Uses

**Original** - A ravine leading to Massey Creek.

### Present Development

**On - site**

- Woodbine Heights Blvd. and Parkview Hill Crescent intersect at this point.
- Vacant, open space.

**Abutting**

- North - St. Clair Avenue.
- East - Single family residences.
- South - Massey Creek.
- West - Wooded area, #2 Parkview Hill Crescent.

### Present Site Owner

- Borough of East York.

## Hydrogeologic Setting

### Geology

- regionally, the area is blanketed by sandy Lake Iroquois deposits
- fine sand and silt of the Thorncliffe Formation may occur beneath the thin surficial sands

### Regional Drainage

- the site is located on a valley slope of a tributary to Massey Creek
- upland areas near the site are serviced by storm sewers

## Disposal Site Detail

### Fill Characteristics

- the fill has been placed on the slopes of a 15 m deep ravine
- the fill is covered by thick grasses, with the upper slope maintained
- the fill extends to the stream at the bottom of the ravine

### Topography and Drainage

- the slope of the fill is estimated to be about 1:3, which is not as steep as the natural ravine slopes
- drainage at the site is excellent although perched groundwater was noted in a wet area on the lower slopes
- there is a storm sewer outfall in the creek at the toe of the landfill

## Identified Impact

### Settlement & Erosion

- some minor erosion has occurred on the steep slope of the landfill
- subsidence depressions occur over much of the site
- Woodbine Cresc and Parkview Hill Cresc also show signs of settlement

### Vegetation Stress

- a few patches of vegetation stress occur on the maintained grass area

### Leachate

- no signs of leachate seepage at the toe of the landfill; however, the creek bed was iron-stained where the storm sewer discharges into Massey Creek

### Methane Gas

- no methane gas was detected in any section of this site
- monitoring of buildings showed no methane gas

## Potential Impacts

- gas migration to the house at 2 Parkview Hill Cresc.

## Recommendations

1. The disposal site and future uses should be permanently identified as follows:
  - (a) identify the "limits of fill" on the Official Plan,
  - (b) amend the Zoning By-law for the disposal site to restrict future uses,
  - (c) register a Notice on the title of the property with the Land Registrar which identifies the disposal site, the potential impacts and the restricted future uses,
  - (d) prohibit future residential development on the disposal site and a limited buffer zone around this site.
2. The Part II study should be carried out to assess the potential impacts. The study should include the following:
  - i) installation of multi-depth gas probes as set out in the Table below,
  - ii) monitoring of gas probes for methane concentration and ground and atmospheric air pressure every two weeks from November to May, and
  - iii) monitoring of methane gas in abutting buildings if the concentration in the ground outside the foundation exceeds 5% by volume.
3. The results of the monitoring program should be assessed to determine:
  - i) if monitoring can be terminated, in the event of no apparent hazard,
  - ii) if monitoring should be continued, in the event of an identified potential hazard,
  - iii) if permanent gas controls should be installed, in the event of a hazardous impact, and
  - iv) minimum buffer zones for future development around the site.

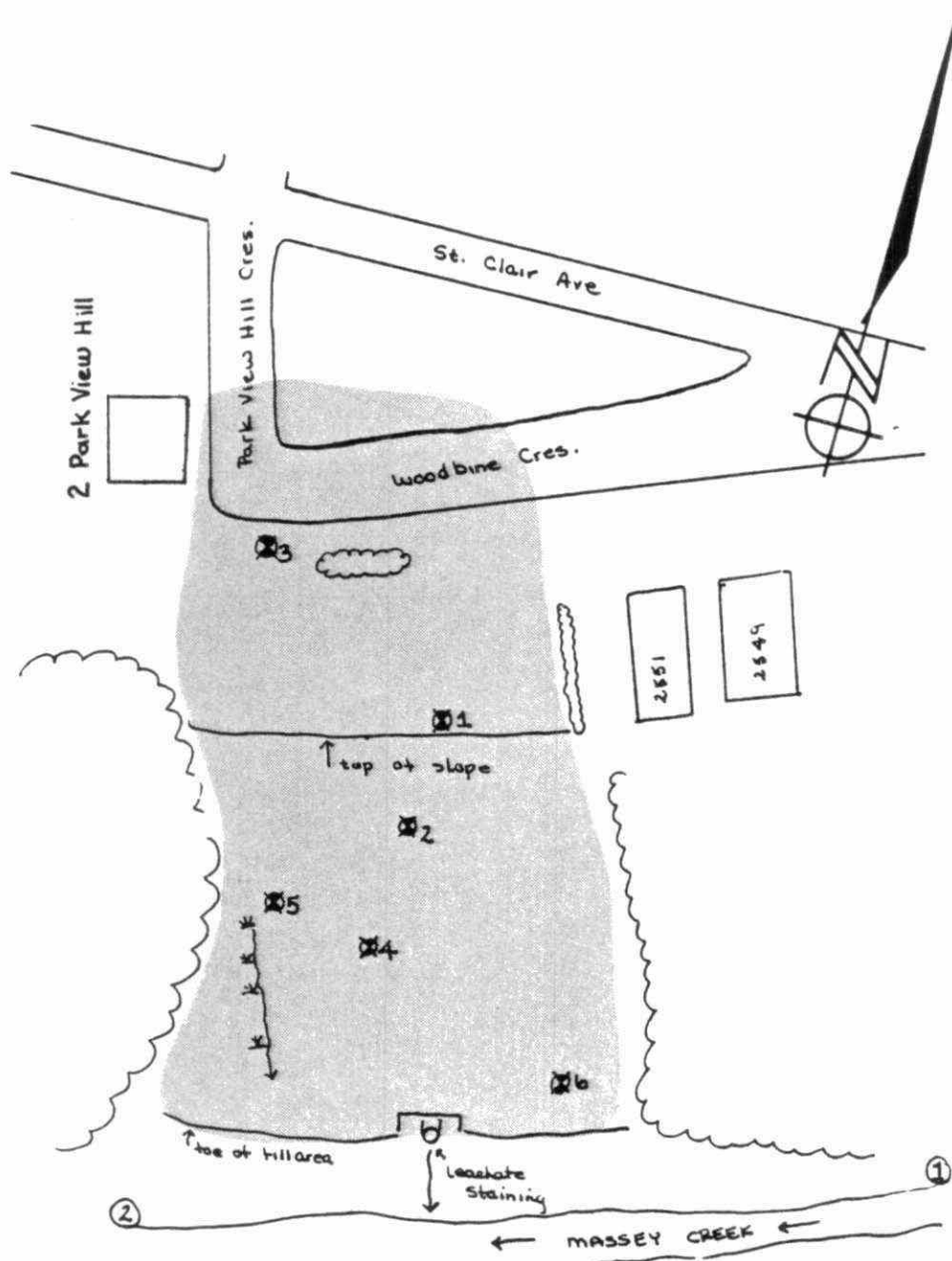
| <u>LOCATION</u>                                                                       | <u>ESTIMATED<br/>NUMBER</u> |
|---------------------------------------------------------------------------------------|-----------------------------|
| - in the front and side yards of 2551 St. Clair Ave. E. and 2 Park View Hill Crescent | 4                           |



SITE NO 3044 East York  
St. CLAIR & WOODBINE

Morrison Beatty Limited  
Gore & Storrie Limited





LEGEND

|                        |                                                                                       |
|------------------------|---------------------------------------------------------------------------------------|
| WASTE DISPOSAL SITE    |  |
| WATER SAMPLE LOCATIONS | ①                                                                                     |
| GAS SAMPLE LOCATIONS   |                                                                                       |
| - in field             | x <sup>2</sup>                                                                        |
| - in buildings         | x <sub>2</sub>                                                                        |

NOT TO SCALE

SITE NO 3044 East York  
St. CLAIR & WOODBINE

Morrison Beatty Limited  
Gore & Storrie Limited



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# OLD WASTE DISPOSAL SITE STUDY

SITE NO.

3044



Morrison Beatty Limited  
Gore & Storrie Limited

DISPOSAL  
AREA



SCALE 1:6670





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(To be completed in duplicate, 1 copy to MOE Regional office, 1 copy to MOE Head office)

FORM I  
(Site Identification Study)

### SITE INSPECTION

MOE REGION CENTRAL REGION DATE Sept 22, 1980 SITE IDENTIFICATION CODE 3044  
SITE St. Clair and Woodbine Heights  
(Lot, concession #, or UTM coordinates, name, address)

#### ON-SITE TESTS

#### I Leachate

##### A. WATER BODIES WITHIN 100 METRES

| Parameter                  | mg/l | Results |     |   |   |   |   |   |   |   |    |
|----------------------------|------|---------|-----|---|---|---|---|---|---|---|----|
|                            |      | 1       | 2   | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1) Chlorides               |      | 275     | 214 |   |   |   |   |   |   |   |    |
| 2) pH                      |      | 7       | 7   |   |   |   |   |   |   |   |    |
| 3) Iron                    |      | .18     | .20 |   |   |   |   |   |   |   |    |
| 4) Alkalinity              |      | 223     | 205 |   |   |   |   |   |   |   |    |
| 5) Conductivity $\mu$ mhos |      | 700     | 690 |   |   |   |   |   |   |   |    |

##### B. WELLS WITHIN 100 METRES

| Parameter           | Results |   |   |   |   |   |   |   |   |    |
|---------------------|---------|---|---|---|---|---|---|---|---|----|
|                     | 1       | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1) Chlorides        |         |   |   |   |   |   |   |   |   |    |
| 2) Dissolved solids |         |   |   |   |   |   |   |   |   |    |
| 3) Iron             |         |   |   |   |   |   |   |   |   |    |
| 4) Alkalinity       |         |   |   |   |   |   |   |   |   |    |
| 5) Conductivity     |         |   |   |   |   |   |   |   |   |    |

Any significant odour problems Yes \_\_\_\_\_ No X Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### LAB TESTS (2 LITRE SAMPLES)

Required, Yes \_\_\_\_\_ No X If Yes, complete Form II, Lab Analysis. If No, go to Part II, Gas.

#### II Gas

##### C. ON-SITE

| Test  | Results | Test  | Results |
|-------|---------|-------|---------|
| Holes |         | Holes |         |
| #1    | 0%      | #6    | 0%      |
| #2    | 0%      | #7    |         |
| #3    | 0%      | #8    |         |
| #4    | 0%      | #9    |         |
| #5    | 0%      | #10   |         |

##### D. BUILDINGS

| Name/Address                   | Results | Name/Address | Results |
|--------------------------------|---------|--------------|---------|
| 1. 2551 St. Clair              | 0%      | 6.           |         |
| 2. 2549 St Clair (no one home) |         | 7.           |         |
| 3. 2 Parkview Hill Cres.       |         | 8.           |         |
| 4. (no one home)               |         | 9.           |         |
| 5.                             |         | 10.          |         |

III General Comments (vegetation, leachate springs, depth, etc.) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(Detail all test point locations in a sketch on reverse side)

Form completed by: Nancy Rennie



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# OLD WASTE DISPOSAL SITE STUDY

Site Number... 3045

Location..... ST. CLAIR & MARILYN CRESCENT  
BOROUGH OF EAST YORK

Morrison Beatty Limited

Gore & Storrie Limited





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of the  
Environment

# OLD WASTE DISPOSAL SITE STUDY

SITE NO. 3045

LOCATION

St. Clair & Marilyn

East York

## Background

### Waste Disposal Practices

- Operated by the then Township of East York.
- Wastes were from all sources including domestic municipal solid wastes.
- The operation was carried on in the late 1940's and early 1950's.
- The depth of landfill is unknown.
- Information sources were the East York Works Department Supervisor, Mr. Fred Moffat; and, Mrs. Stevenson of 2579 St. Clair Avenue.

### Land Uses

#### Original

- The surrounding area was once farmland, however, the site was once a natural drainage ravine.

### Present Development

#### On - site

- The northern section of the site serves as the playground for Presteign Heights Public School.
- The southern section of the site is occupied by three, single family houses.

#### Abutting

- The site area is surrounded by single family homes and is adjacent to Presteign Heights Public School.

### Present Site Owner

- Presteign Heights School is owned by the East York Board of Education.
- 2579 St. Clair Avenue - (Owner: Mrs. Stevenson).
- 2577 St. Clair Avenue - (Owner: Unknown).
- 2581 St. Clair Avenue - (Owner: Unknown).

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## Hydrogeologic Setting

### Geology

- regionally, the area is blanketed by sandy Lake Iroquois deposits
- fine sand and silt of the Thorncliffe Formation may occur beneath the thin surficial sands

### Regional Drainage

- the site is located in an old ravine which drained into a tributary of Massey Creek
- storm sewers intercept drainage from upland areas north of St. Clair Ave.

## Disposal Site Detail

### Fill Characteristics

- the exact limits of fill at this site are unknown; settlement cracks on St. Clair Ave indicate refuse beneath the road, however, the northern extension of fill onto the Presteign Heights Public School is uncertain
- 3 properties, 2577, 2579 and 2581 St. Clair Ave E are underlain by the ravine fill

### Topography and Drainage

- the fill slope at the mouth of the ravine is very steep ( $< 2:1$ )
- the backyards of the 3 affected properties have been graded flat
- drainage at the site is good, however it was noted that a large depression at the rear of 2577 St. Clair Ave E was recently filled and regraded

M-141279

## Identified Impact

### Settlement & Erosion

- there are extensive settlement cracks on the exterior and interior walls of 2579 St. Clair Ave
- the parking lot area on the school property shows significant signs of settlement
- residents of 2577 St. Clair Ave have had their backyard built up 1 metre because of fill settlement; this home also has cracks in the exterior walls
- some erosion has occurred on the landfill slope to Massey Creek

### Vegetation Stress

- there are patchy areas of vegetation stress over much of the school playground but it is not certain whether or not this is due to landfill gas

### Leachate

- a leachate stream seeps from the toe of the landfill site to the tributary of Massey Creek; however, the water quality has not been measurably affected

### Methane Gas

- methane gas was not detected at any location in the disposal site
- gas was not measured in any of the monitored homes or school, however residents of 2579 St. Clair Ave reported odours in their basement, particularly after periods of heavy rainfall

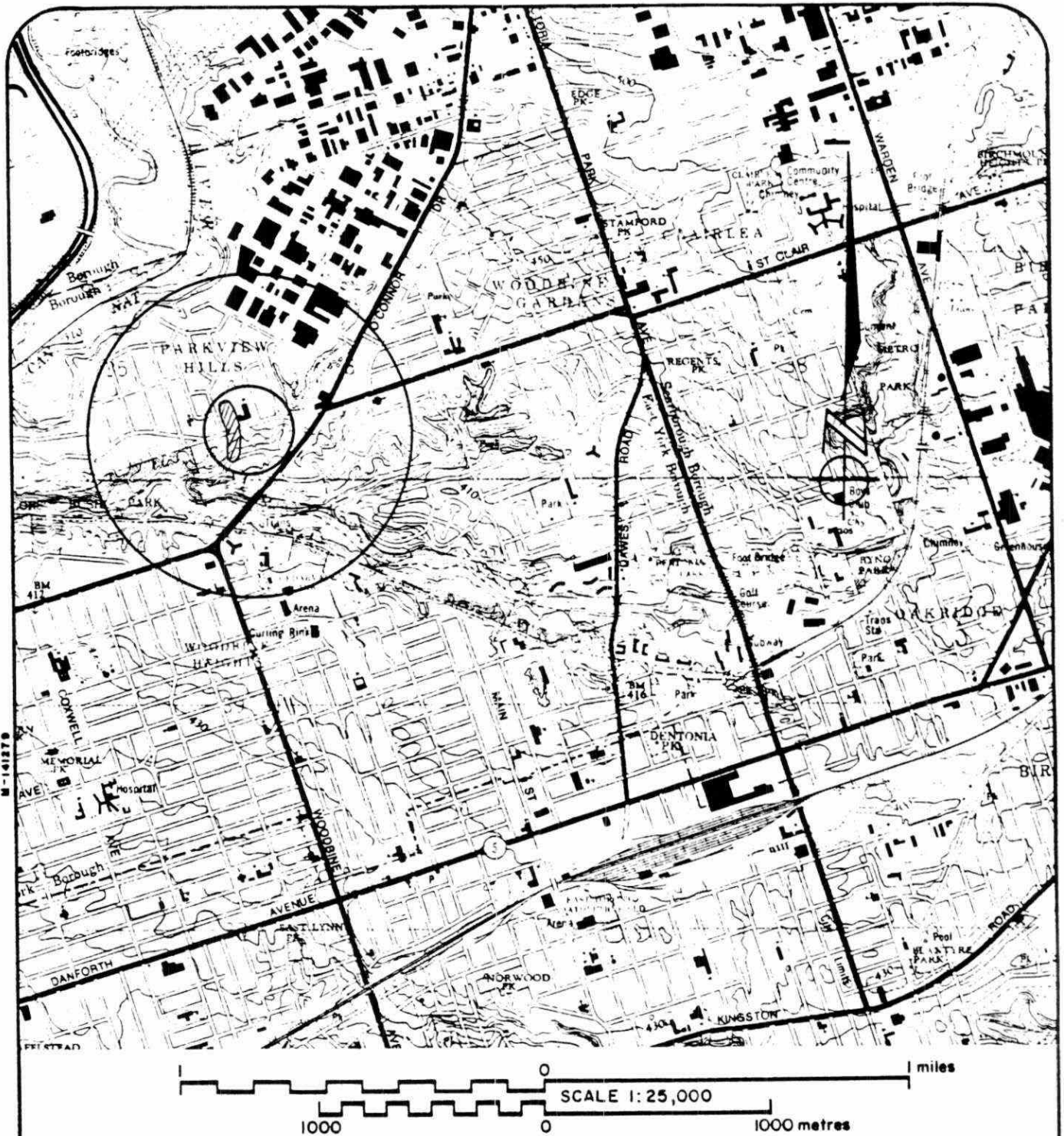
## Potential Impacts

- further structural problems due to settlement of the fill at the three homes located directly on the disposal site
- gas migration into residences which are built on the filled area
- gas migration into residences abutting the site via the sand overburden or granular bedding in the service trenches
- gas migration to the public school building, if waste was placed in the playground area

## Recommendations

1. The disposal site and future uses should be permanently identified as follows:
  - (a) identify the "limits of fill" on the Official Plan,
  - (b) amend the Zoning By-law for the disposal site to restrict future uses,
  - (c) register a Notice on the title of the property with the Land Registrar which identifies the disposal site, the potential impacts and the restricted future uses,
  - (d) prohibit future residential development on the disposal site and a limited buffer zone around this site.
2. The Part II study should be carried out to assess the potential impacts. The study should include the following:
  - i) installation of multi-depth gas probes as set out in the Table below,
  - ii) monitoring of gas probes for methane concentration and ground and atmospheric air pressure every week from November to May and,
  - iii) monitoring of methane gas in abutting buildings if the concentration in the ground outside the foundation exceeds 5% by volume.
3. The results of the monitoring program should be assessed to determine:
  - i) if monitoring can be terminated, in the event of no apparent hazard,
  - ii) if monitoring should be continued, in the event of an identified potential hazard,
  - iii) if permanent gas controls should be installed, in the event of a hazardous impact,
  - iv) minimum buffer zones for future development around the site.
4. The construction history of on-site and near-site buildings should be reviewed. The following should be examined:
  - i) soil investigation reports,
  - ii) reports of waste materials encountered during construction,
  - iii) plans of foundation design,
  - iv) details of special gas control systems, if any, and
  - v) details of gas monitoring program, if any.
5. A comprehensive analysis of leachate collected from the identified seepage points should be conducted.

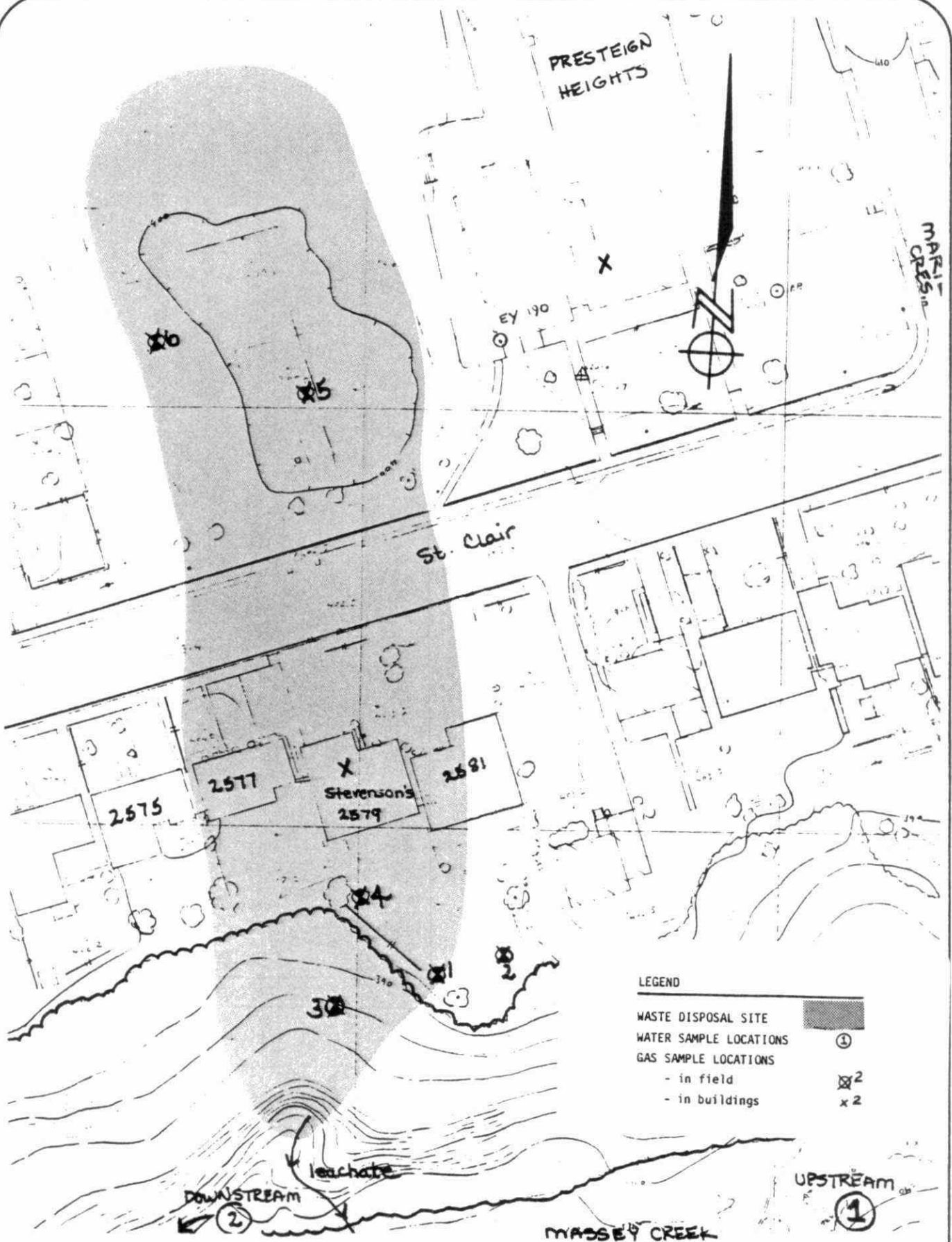
| <u>LOCATION</u>                                                              | <u>ESTIMATED<br/>NUMBER</u> |
|------------------------------------------------------------------------------|-----------------------------|
| - the vicinity of the foundation of Presteign Heights Public School          | 4                           |
| - the vicinity of the foundations of 2577, 2579 and 2581 St. Clair Ave. East | 8                           |



SITE NO. 3045  
MARILYN Cres. EAST YORK

Morrison Beatty Limited  
Gore & Storrie Limited

M-221080



NOT TO SCALE

SITE NO. 3045  
MARILYN Cres. EAST YORK

Morrison Beatty Limited  
Gore & Storrie Limited





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# OLD WASTE DISPOSAL SITE STUDY

SITE NO.

3045



Morrison Beatty Limited  
Gore & Storrie Limited

DISPOSAL  
AREA



SCALE 1:6670





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(To be completed in duplicate, 1 copy to MOE Regional office, 1 copy to MOE Head office)

FORM I  
(Site Identification Study)

### SITE INSPECTION

MOE REGION CENTRAL REGION DATE Sept. 22, 1980 SITE IDENTIFICATION CODE 3045  
SITE St. Clair and Marilyn Cresc.  
(Lot, concession #, or UTM coordinates, name, address)

#### ON-SITE TESTS

##### I Leachate

###### A. WATER BODIES WITHIN 100 METRES

| Parameter                  | mg/l | Results |     |   |   |   |   |   |   |   |    |
|----------------------------|------|---------|-----|---|---|---|---|---|---|---|----|
|                            |      | 1       | 2   | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1) Chlorides               |      | 244     | 275 |   |   |   |   |   |   |   |    |
| 2) pH                      |      | 7       | 7   |   |   |   |   |   |   |   |    |
| 3) Iron                    |      | .20     | .18 |   |   |   |   |   |   |   |    |
| 4) Alkalinity              |      | 223     | 223 |   |   |   |   |   |   |   |    |
| 5) Conductivity $\mu$ mhos |      | 720     | 700 |   |   |   |   |   |   |   |    |

###### B. WELLS WITHIN 100 METRES

| Parameter           | Results |   |   |   |   |   |   |   |   |    |
|---------------------|---------|---|---|---|---|---|---|---|---|----|
|                     | 1       | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1) Chlorides        |         |   |   |   |   |   |   |   |   |    |
| 2) Dissolved solids |         |   |   |   |   |   |   |   |   |    |
| 3) Iron             |         |   |   |   |   |   |   |   |   |    |
| 4) Alkalinity       |         |   |   |   |   |   |   |   |   |    |
| 5) Conductivity     |         |   |   |   |   |   |   |   |   |    |

Any significant odour problems Yes ☐ No ☒ Comments \_\_\_\_\_

#### LAB TESTS (2 LITRE SAMPLES)

Required, Yes ☐ No ☐ If Yes, complete Form II, Lab Analysis. If No, go to Part II, Gas.

##### II Gas

###### C. ON-SITE

| Test Holes | Results | Test Holes | Results |
|------------|---------|------------|---------|
| #1         | 0%      | #6         | 0%      |
| #2         | 0%      | #7         |         |
| #3         | 0%      | #8         |         |
| #4         | 0%      | #9         |         |
| #5         | 0%      | #10        |         |

###### D. BUILDINGS

| Name/Address                    | Results | Name/Address | Results |
|---------------------------------|---------|--------------|---------|
| 1. Stevenson's 2570 St. Clair   | 0%      | 6. _____     |         |
| 2. 2581 St. Clair (no one home) |         | 7. _____     |         |
| 3. 2577 St. Clair (no one home) |         | 8. _____     |         |
| 4. Presteign Hts Public School  | 0%      | 9. _____     |         |
| 5. _____                        |         | 10. _____    |         |

III General Comments (vegetation, leachate springs, depth, etc.) \_\_\_\_\_

(Detail all test point locations in a sketch on reverse side)

Form completed by: Nancy Rennie



Ontario

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# OLD WASTE DISPOSAL SITE STUDY

Site Number... 3046

Location..... ST. CLAIR & O'CONNOR  
BOROUGH OF EAST YORK

Morrison Beatty Limited

Gore & Storrie Limited



Ministry  
of the  
Environment  
Ontario

# OLD WASTE DISPOSAL SITE STUDY

SITE NO. 3046  
LOCATION  
St. Clair & O'Connor  
East York

## Background

### Waste Disposal Practices

- Operated in the late 1940's to the early 1950's by the then Township of East York as a municipal solid wastes disposal site.
- The site is approximately one hectare in size.
- Approximately 50 to 80 thousand cubic metres of material was deposited in the site.
- Refuse was placed in the area which is now the road allowance of St. Clair Avenue from O'Connor Drive to about Westview Blvd. (This is evidenced by the fact that the watermain in front of the Shell Service Station was excavated for repairs two months ago by the Borough of East York and garbage was observed four feet below the surface.)
- Information sources are the East York Works Department Supervisors Messrs. Fred Moffat and Harry Clark.

### Land Uses

#### Original

- The site was originally an old creek bank which discharged eventually into Massey Creek.
- It was developed into a road in the 1950's.

## Present Development

#### On - site

- A road intersection for St. Clair Avenue and O'Connor Drive.
- Shell Service Station parking lot.
- The Bank of Nova Scotia and possibly the Toronto Men's Fitness Centre.

#### Abutting

- North - The Royal Bank, O'Connor Drive extension, ravine.
- East - St. Clair Avenue extension, vacant car dealership.
- South - O'Connor Drive southern extension, Crystal Glass, and various commercial establishments.
- West - Various commercial establishments.

## Present Site Owner

- Bank of Nova Scotia
- Borough of East York
- Shell Gas Station

Morrison Beatty Limited | Gore & Storrie Limited



## Hydrogeologic Setting

### Geology

- regionally, the area is blanketed by sandy Lake Iroquois deposits
- fine sand and silt of the Thorncliffe Formation may occur beneath the thin surficial sands

### Regional Drainage

- the site is located on a steep valley slope of a tributary to Massey Creek
- the upland areas near the site are serviced by storm sewers

## Disposal Site Detail

### Fill Characteristics

- the fill appears to have been end-dumped over the edge of a 12 m deep ravine
- the site slopes are covered with native grasses and weeds and are too steep to maintain; the top surface is gravelled

### Topography and Drainage

- the top surface of the fill has been smoothly graded and gravelled to provide parking space for nearby businesses; the fill slope is at a grade of about 2:1, which is similar to the ravine slope
- drainage at the site is excellent



## Identified Impact

### Settlement & Erosion

- gullies have been eroded on the slope embankment
- parking lot area behind the Bank of Nova Scotia has minor settlement depressions

### Vegetation Stress

- there is no maintenance of this site, and normal signs of vegetation stress were not evident

### Leachate

- there was no evidence of leachate seepage
- there was no measureable effect on water quality

### Methane Gas

- no methane was detected at any location on this site or in the monitored buildings
- vents were observed on the east side of O'Connor Drive beside the Royal Bank and the odour of methane was detected

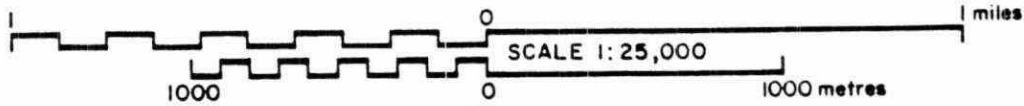
## Potential Impacts

- gas migration via the sandy surficial deposits to the buildings which abut the disposal site

## Recommendations

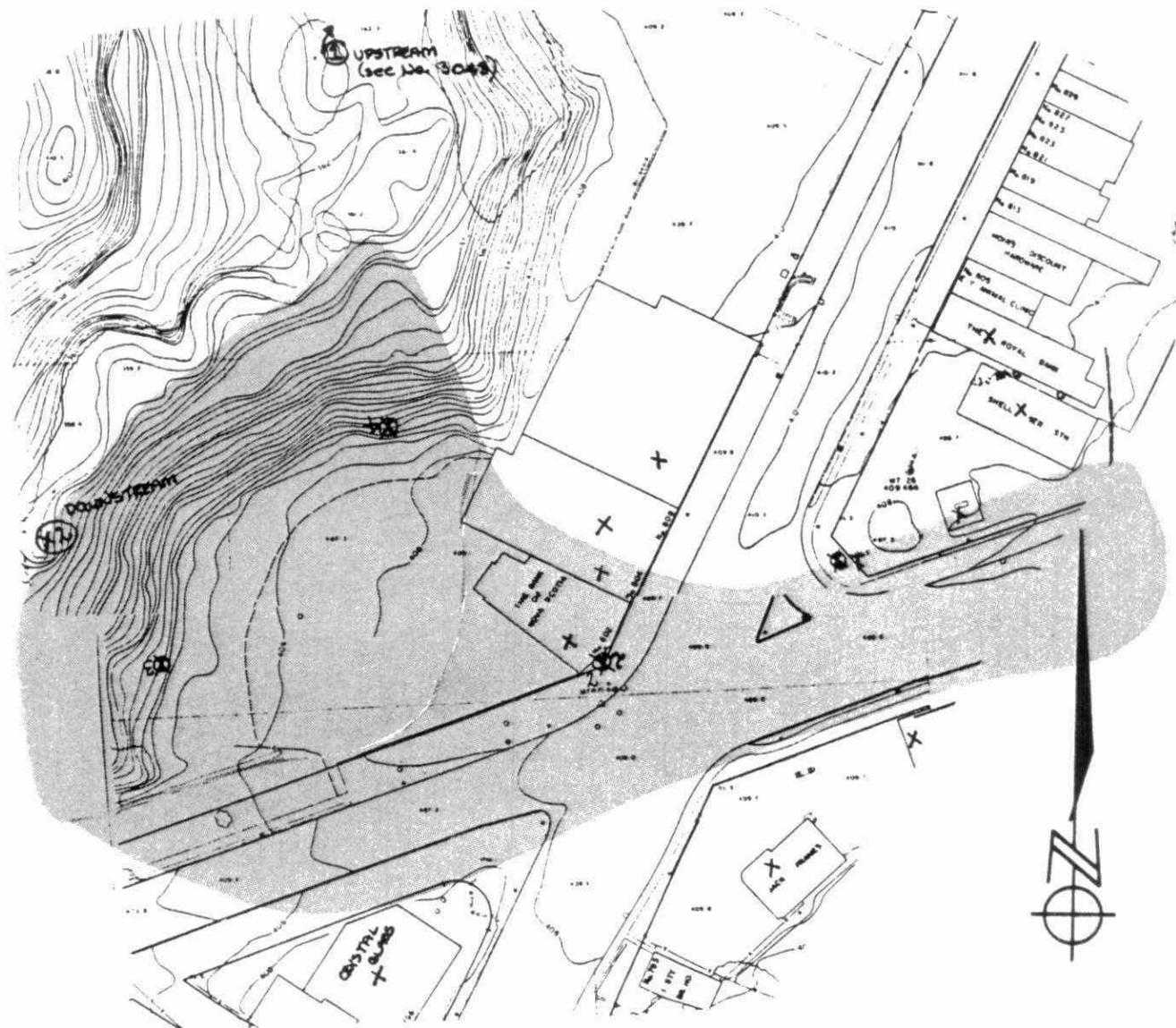
1. The disposal site and future uses should be permanently identified as follows:
  - (a) identify the "limits of fill" on the Official Plan,
  - (b) amend the Zoning By-law for the disposal site to restrict future uses,
  - (c) register a Notice on the title of the property with the Land Registrar which identifies the disposal site, the potential impacts and the restricted future uses,
  - (d) prohibit future residential development on the disposal site and a limited buffer zone around this site.
2. The Part II study should be carried out to assess the potential impacts. The study should include the following:
  - i) installation of multi-depth gas probes as set out in the Table below,
  - ii) monitoring of gas probes for methane concentration and ground and atmospheric air pressure every two weeks from November to May, and
  - iii) monitoring of methane gas in abutting buildings if the concentration in the ground outside the foundation exceeds 5% by volume.
3. The results of the monitoring program should be assessed to determine:
  - i) if monitoring can be terminated, in the event of no apparent hazard,
  - ii) if monitoring should be continued, in the event of an identified potential hazard,
  - iii) if permanent gas controls should be installed, in the event of a hazardous impact,
  - iv) minimum buffer zones for future development around the site.
4. The construction history of on-site and near-site buildings should be reviewed. The following should be examined:
  - i) soil investigation reports,
  - ii) reports of waste materials encountered during construction,
  - iii) plans of foundation design,
  - iv) details of special gas control systems, if any, and
  - v) details of gas monitoring program, if any.

| <u>LOCATION</u>                              | <u>ESTIMATED<br/>NUMBER</u> |
|----------------------------------------------|-----------------------------|
| - in the vicinity of the foundations of the: |                             |
| Bank of Nova Scotia                          | 3                           |
| Crystal Glass Building                       | 2                           |
| Shell Service Station                        | 2                           |



SITE NO. 3046 East York  
St. CLAIR & O'CONNOR

Morrison Beatty Limited  
Gore & Storrie Limited



LEGEND

- |                        |                |
|------------------------|----------------|
| WASTE DISPOSAL SITE    |                |
| WATER SAMPLE LOCATIONS | ①              |
| GAS SAMPLE LOCATIONS   |                |
| - in field             | ⊗ <sup>2</sup> |
| - in buildings         | x <sup>2</sup> |

NOT TO SCALE

SITE NO. 3046 East York  
St. CLAIR & O'CONNOR

Morrison Beatty Limited  
Gore & Storrie Limited





Ontario

Ministry  
of the  
Environment

# OLD WASTE DISPOSAL SITE STUDY

SITE NO.

3046



Morrison Beatty Limited  
Gore & Storrie Limited

DISPOSAL  
AREA



SCALE 1:6670







Ministry  
of the  
Environment  
Ontario

(To be completed in duplicate, 1 copy to MOE Regional office, 1 copy to MOE Head office)

FORM I  
(Site Identification Study)

### SITE INSPECTION

MOE REGION CENTRAL REGION DATE Sept. 22, 1980 SITE IDENTIFICATION CODE 3046  
SITE St. Clair and O'Connor  
(Lot, concession #, or UTM coordinates, name, address)

#### ON-SITE TESTS

##### I Leachate

###### A. WATER BODIES WITHIN 100 METRES

| Parameter                        | mg/l | Results |     |   |   |   |   |   |   |   |    |
|----------------------------------|------|---------|-----|---|---|---|---|---|---|---|----|
|                                  |      | 1       | 2   | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1) Chlorides                     |      | 366     | 397 |   |   |   |   |   |   |   |    |
| 2) pH                            |      | 7       | 7   |   |   |   |   |   |   |   |    |
| 3) Iron                          |      | .20     | .18 |   |   |   |   |   |   |   |    |
| 4) Alkalinity                    |      | 188     |     |   |   |   |   |   |   |   |    |
| 5) Conductivity $\mu\text{mhos}$ |      | 900     | 850 |   |   |   |   |   |   |   |    |

###### B. WELLS WITHIN 100 METRES

| Parameter           | Results |   |   |   |   |   |   |   |   |    |
|---------------------|---------|---|---|---|---|---|---|---|---|----|
|                     | 1       | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1) Chlorides        |         |   |   |   |   |   |   |   |   |    |
| 2) Dissolved solids |         |   |   |   |   |   |   |   |   |    |
| 3) Iron             |         |   |   |   |   |   |   |   |   |    |
| 4) Alkalinity       |         |   |   |   |   |   |   |   |   |    |
| 5) Conductivity     |         |   |   |   |   |   |   |   |   |    |

Any significant odour problems Yes \_\_\_\_\_ No X Comments \_\_\_\_\_

#### LAB TESTS (2 LITRE SAMPLES)

Required, Yes \_\_\_\_\_ No X If Yes, complete Form II, Lab Analysis. If No, go to Part II, Gas.

##### II Gas

###### C. ON-SITE

| Test  | Results | Test  | Results |
|-------|---------|-------|---------|
| Holes |         | Holes |         |
| #1    | 0%      | #6    |         |
| #2    | 0%      | #7    |         |
| #3    | 0%      | #8    |         |
| #4    | 0%      | #9    |         |
| #5    |         | #10   |         |

###### D. BUILDINGS

| Name/Address                    | Results | Name/Address                   | Results |
|---------------------------------|---------|--------------------------------|---------|
| 1. Shell Station, St. Clair and | 0%      | 6. Timbrell Riding Office,     | 0%      |
| 2. O'Connor                     |         | 7. 808 O'Connor                |         |
| 3. Mr. Submarine, 7979 O'Connor | 0%      | 8. Crystal Glass, 796 O'Connor | 0%      |
| 4. Mother Goose Restaurant,     | 0%      | 9. 793 O'Connor (no one home)  |         |
| 5. 7978 O'Connor                |         | 10. 789 O'Connor (no one home) |         |

III General Comments (vegetation, leachate springs, depth, etc.) \_\_\_\_\_

(Detail all test point locations in a sketch on reverse side)

Form completed by: Nancy Rennie



SITE INSPECTION

MOE REGION \_\_\_\_\_ DATE \_\_\_\_\_ SITE IDENTIFICATION CODE 3046 - Page 2

SITE St. Clair and O'Connor cont'd  
(Lot, concession #, or UTM coordinates, name, address)

ON-SITE TESTS

I Leachate

A. WATER BODIES WITHIN 100 METRES

Parameter

Results

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

B. WELLS WITHIN 100 METRES

Parameter

Results

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

Any significant odour problems Yes \_\_\_\_\_ No \_\_\_\_\_ Comments \_\_\_\_\_

LAB TESTS (2 LITRE SAMPLES)

Required, Yes \_\_\_\_\_ No \_\_\_\_\_ If Yes, complete Form II, Lab Analysis. If No, go to Part II, Gas.

II Gas

C. ON-SITE

D. BUILDINGS

Test

Holes

Results

Test

Holes

Results

Name/Address

Results

Name/Address

Results

|    |       |     |       |                              |        |                             |       |
|----|-------|-----|-------|------------------------------|--------|-----------------------------|-------|
| #1 | _____ | #6  | _____ | 1. 791 O'Connor              | 0%     | 6. Royal Bank, 403 O'Connor | 0%    |
| #2 | _____ | #7  | _____ | 2. O'Connor Dodge            | vacant | 7. _____                    | _____ |
| #3 | _____ | #8  | _____ | 3. Tor. Men's Fitness Centre | vacant | 8. _____                    | _____ |
| #4 | _____ | #9  | _____ | 4. Bank of Nova Scotia       | 0%     | 9. _____                    | _____ |
| #5 | _____ | #10 | _____ | 5. Post Office, 812 O'Connor | 0%     | 10. _____                   | _____ |

III General Comments (vegetation, leachate springs, depth, etc.) \_\_\_\_\_

(Detail all test point locations in a sketch on reverse side)

Form completed by: Nancy Rennie



Ontario

Ministry  
of the  
Environment

# OLD WASTE DISPOSAL SITE STUDY

Site Number... 3048

Location..... O'CONNOR & CURITY  
BOROUGH OF EAST YORK

Morrison Beatty Limited

Gore & Storrie Limited



Ontario

Ministry  
of the  
Environment

# OLD WASTE DISPOSAL SITE STUDY

SITE NO. 3048

LOCATION

O'Connor & Curity

East York

## Background

### Waste Disposal Practices

- Operated by the Borough of East York as a sanitary garbage disposal site in the early 60's for a period of 3-4 years.
- The site was closed 15 or 16 years ago.
- The general operating procedure included filling in the drainage ravine.
- Observation of the unfilled ravine at the south end of the site and across Curity Avenue indicates a 7 to 10 m drop.
- It is believed that the original depth of the filled site was equally as deep, therefore, it is estimated that 150 to 230 thousand cubic metres of material were deposited in the site.
- Information sources were Messrs. Harry Clark and Fred Moffat, Works Department, Borough of East York.

### Land Uses

#### Original

- The site was once a northern extension of a drainage ravine leading to Massey Creek.
- The steep banks lent themselves quite well to a disposal site.

### Present Development

#### On - site

- The site is now mostly paved and is used as a parking lot for the Kendall industrial building.
- The N.E. corner of the Kendall building is actually sitting on the landfill, but, it is noted that the building is sitting on stilts to ensure ventilation.
- A sewer line presently traverses the landfilled area along the path of the old ravine in a 1.2 m trench.
- Six manholes are located in the old refuse.
- There are ventilation pipes on site and these are presently monitored by Metro once a month.

#### Abutting

- The landfill is surrounded on all sides by industrial buildings (mostly Kendall industrial buildings) except for the S.E. side adjacent to O'Connor Drive.
- These buildings are residential consisting mostly of three-storey apartment dwellings.

### Present Site Owner

- Kendal Canada Division C.K.R. Inc.
- Multiownership by private individuals of adjacent highrises on O'Connor Drive
- Commercial buildings on Dohme Avenue.

## Hydrogeologic Setting

### Geology

- regionally, the area is blanketed by sandy Lake Iroquois deposits
- fine sand and silt of the Thorncliffe Formation may occur beneath the thin surficial sands

### Regional Drainage

- the landfill site is located in the upper portions of an old ravine; the entire area surrounding the site is now serviced by storm sewers

## Disposal Site Detail

### Fill Characteristics

- the refuse at this site was placed in a 5-10 m deep ravine which formed two branches on the property
- the site is surrounded by development: 3-story apartments on the east; commercial buildings on the north; a large industrial building (Kendall) which occupies the entire southwest quadrant of the block; a portion of the Kendall building is built on the fill
- paved parking lots and access driveways cover most of the landfill

### Topography and Drainage

- the surface of the fill is flat, with an elongated depression along the east side (behind the apartments)
- all precipitation which falls in the paved areas is drained to storm sewers; runoff from the non-paved areas on the east side drain into the elongated depression
- a storm sewer traverses the site along the eastern side



## Identified Impact

### Settlement & Erosion

- the paved parking lot areas which cover the majority of the site show signs of settlement; several large depression areas hold rainwater; the paved areas have been resurfaced several times
- there is no evidence of erosion problems

### Vegetation Stress

- there are no signs of vegetation stress in the grassed depression on the east side; however, this area is not maintained and growth is not hardy

### Leachate

- there was no apparent evidence of leachate seepage; however, seasonal seepage likely occurs at the toe of the ravine embankment on Curity Ave.
- there was no measurable impact on water quality downstream

### Methane Gas

- Metro Toronto Works Department periodically monitor the vent pipes on and adjacent to the fill area; they also take ground readings
- no methane gas was detected in any of the monitored buildings

## Potential Impacts

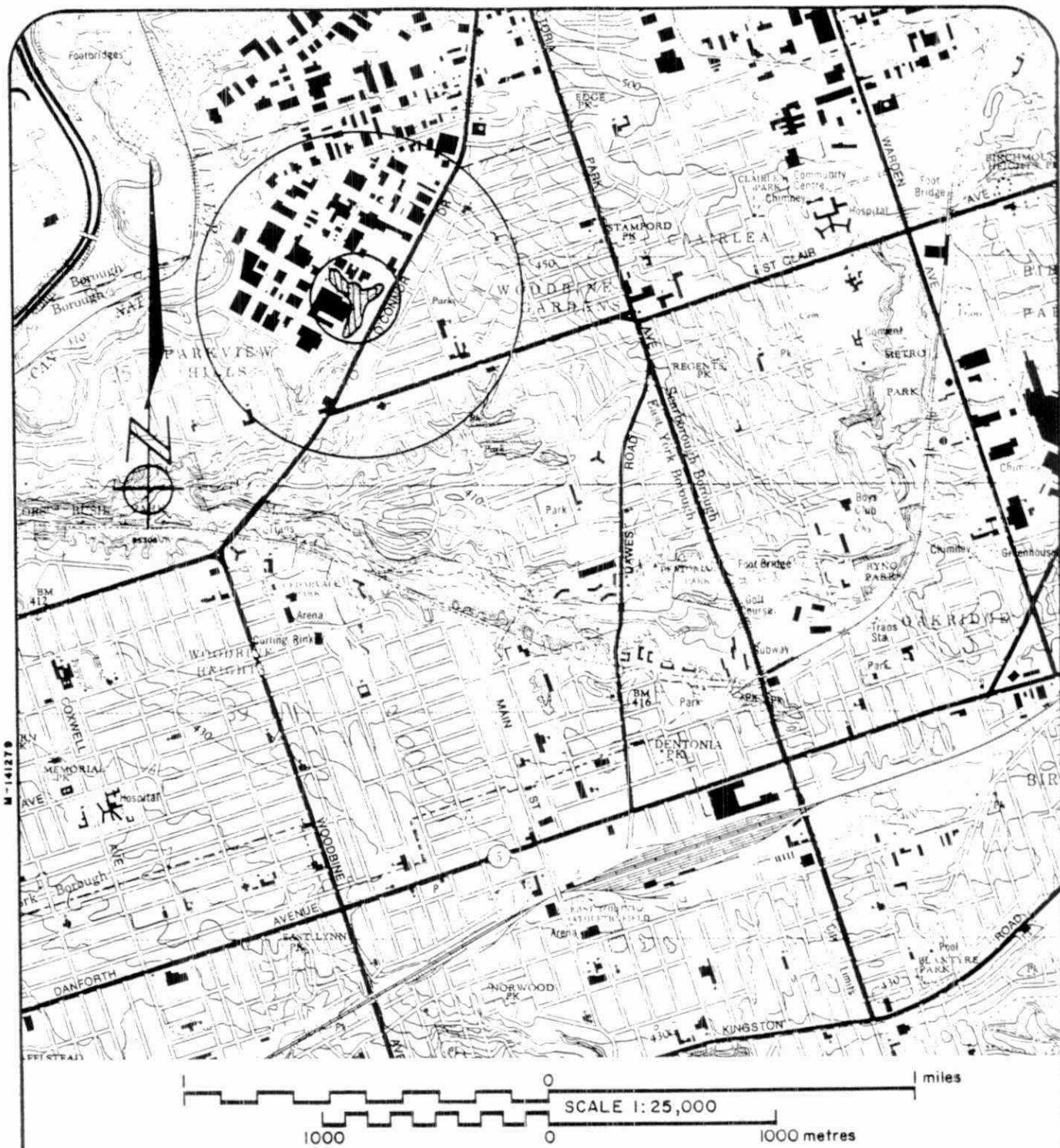
- methane migration into the apartments along O'Connor Drive and the commercial buildings along Dohme Ave (to the north); gas migration into the Kendall building should not be a problem since it is equipped with gas control systems

## Recommendations

1. The disposal site and future uses should be permanently identified as follows:
  - (a) identify the "limits of fill" on the Official Plan,
  - (b) amend the Zoning By-law for the disposal site to restrict future uses,
  - (c) register a Notice on the title of the property with the Land Registrar which identifies the disposal site, the potential impacts and the restricted future uses,
  - (d) prohibit future residential development on the disposal site and a limited buffer zone around this site.
2. The Part II study should be carried out to assess the potential impacts. The study should include the following:
  - i) installation of multi-depth gas probes as set out in the Table below,
  - ii) monitoring of gas probes for methane concentration and ground and atmospheric air pressure every two weeks from November to May, and
  - iii) monitoring of methane gas in abutting buildings if the concentration in the ground outside the foundation exceeds 5% by volume.
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  - iii) if permanent gas controls should be installed, in the event of a hazardous impact, and
  - iv) minimum buffer zones for future development around the site.

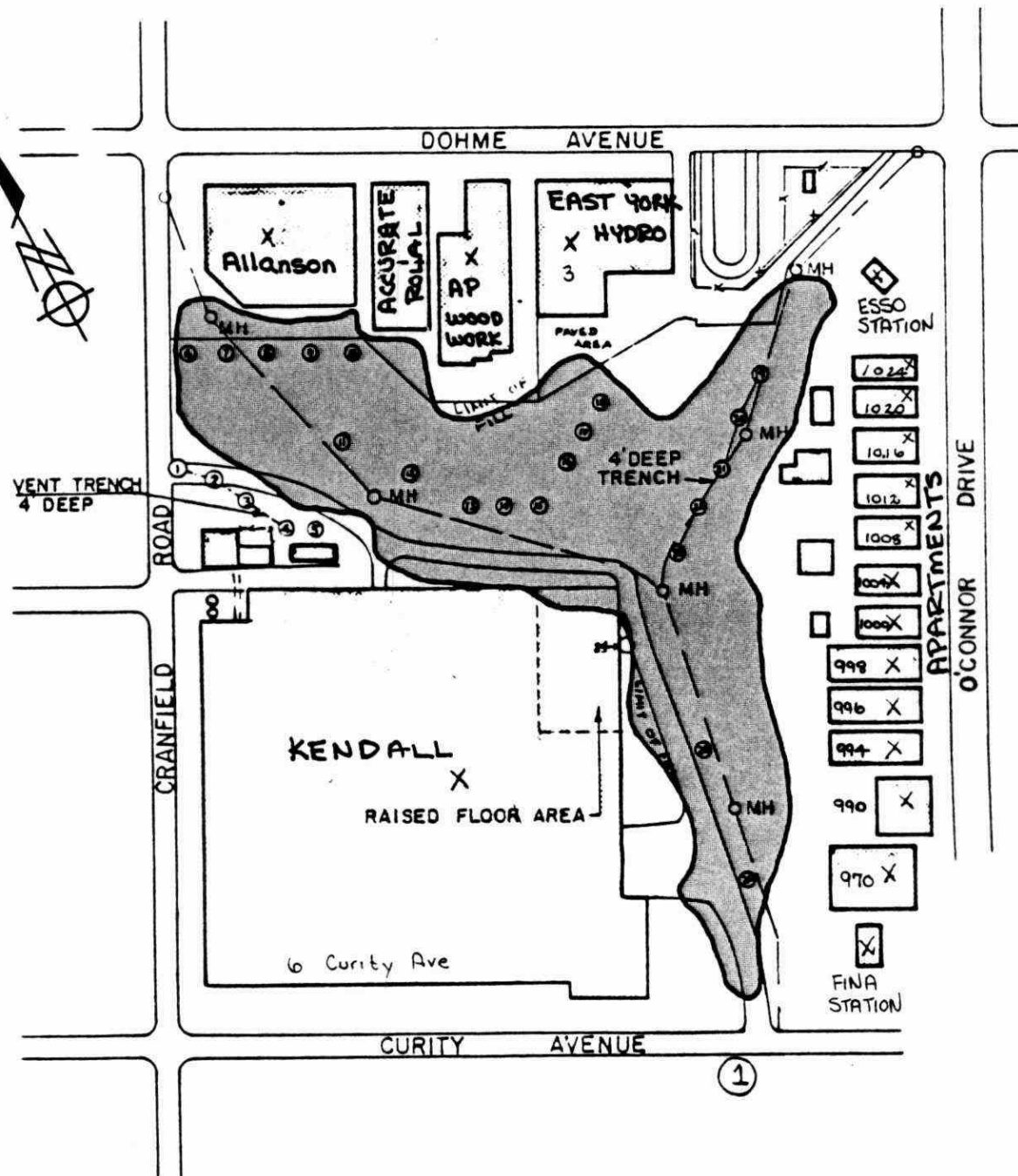
M-141279

| <u>LOCATION</u>                                                                                | <u>ESTIMATED<br/>NUMBER</u> |
|------------------------------------------------------------------------------------------------|-----------------------------|
| - in the parking lot area behind the commercial buildings on Dohme Avenue                      | 7                           |
| - between the apartment buildings and service stations on O'Connor Drive and the landfill site | 14                          |



SITE NO. 3048  
CURITY AVE., EAST YORK

Morrison Beatty Limited  
Gore & Storrie Limited



FILL COMPLETED IN SEPT. 1963

## LEGEND

WASTE DISPOSAL SITE  
 WATER SAMPLE LOCATIONS  
 GAS SAMPLE LOCATIONS  
   - in field  
   - in buildings

①

 x<sup>2</sup>  
 x<sup>2</sup>

SCALE 1:2400

**SITE NO. 3048**  
**CURITY AVE., EAST YORK**

**Morrison Beatty Limited**  
**Gore & Storrie Limited**





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# OLD WASTE DISPOSAL SITE STUDY

SITE NO.

3048



Morrison Beatty Limited  
Gore & Storrie Limited

DISPOSAL  
AREA



SCALE 1:6670







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Environment  
Ontario

(To be completed in duplicate, 1 copy to MOE Regional office, 1 copy to MOE Head office)

FORM I  
(Site Identification Study)

### SITE INSPECTION

MOE REGION CENTRAL REGION DATE Sept. 18, 1980 SITE IDENTIFICATION CODE 3048  
SITE Curity and O'Connor  
(Lot, concession #, or UTM coordinates, name, address)

#### ON-SITE TESTS

#### I Leachate

##### A. WATER BODIES WITHIN 100 METRES

| Parameter                  | mg/l | Results |   |   |   |   |   |   |   |   |    |
|----------------------------|------|---------|---|---|---|---|---|---|---|---|----|
|                            |      | 1       | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1) Chlorides               |      | 397     |   |   |   |   |   |   |   |   |    |
| 2) pH                      |      | 7       |   |   |   |   |   |   |   |   |    |
| 3) Iron                    |      | .18     |   |   |   |   |   |   |   |   |    |
| 4) Alkalinity              |      | 257     |   |   |   |   |   |   |   |   |    |
| 5) Conductivity $\mu$ mhos |      | 850     |   |   |   |   |   |   |   |   |    |

##### B. WELLS WITHIN 100 METRES

| Parameter           | Results |   |   |   |   |   |   |   |   |    |
|---------------------|---------|---|---|---|---|---|---|---|---|----|
|                     | 1       | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1) Chlorides        |         |   |   |   |   |   |   |   |   |    |
| 2) Dissolved solids |         |   |   |   |   |   |   |   |   |    |
| 3) Iron             |         |   |   |   |   |   |   |   |   |    |
| 4) Alkalinity       |         |   |   |   |   |   |   |   |   |    |
| 5) Conductivity     |         |   |   |   |   |   |   |   |   |    |

Any significant odour problems Yes ☐ No ☒ Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### LAB TESTS (2 LITRE SAMPLES)

Required, Yes ☐ No ☒ If Yes, complete Form II, Lab Analysis. If No, go to Part II, Gas.

#### II Gas

##### C. ON-SITE

| Test  | Results | Test  | Results |
|-------|---------|-------|---------|
| Holes |         | Holes |         |
| #1    |         | #6    |         |
| #2    |         | #7    |         |
| #3    |         | #8    |         |
| #4    |         | #9    |         |
| #5    |         | #10   |         |

##### D. BUILDINGS

| Name/Address               | Results | Name/Address                      | Results |
|----------------------------|---------|-----------------------------------|---------|
| 1. 996 O'Connor (apt)      | 0%      | 6. 1008 O'Connor (apt)            | 0%      |
| 2. 994 O'Connor (apt)      | 0%      | 7. 1004 O'Connor (apt)            | 0%      |
| 3. 990 O'Connor (apt)      | 0%      | 8. 1000 O'Connor (apt)            | 0%      |
| 4. 970 O'Connor (highrise) | 0%      | 9. Esso Station, O'Connor & Dohme | 0%      |
| 5. 1012 O'Connor (apt)     | 0%      | 10. 1024 O'Connor (apt)           | 0%      |

III General Comments (vegetation, leachate springs, depth, etc.) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(Detail all test point locations in a sketch on reverse side)

Form completed by: Nancy Rennie



SITE INSPECTION

MOE REGION \_\_\_\_\_ DATE \_\_\_\_\_ SITE IDENTIFICATION CODE 3048 - Page 2

SITE Curity and O'Connor cont'd  
(Lot, concession #, or UTM coordinates, name, address)

ON-SITE TESTS

I Leachate

A. WATER BODIES WITHIN 100 METRES

Parameter

Results

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

B. WELLS WITHIN 100 METRES

Parameter

Results

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

Any significant odour problems Yes \_\_\_\_\_ No, X Comments \_\_\_\_\_

LAB TESTS (2 LITRE SAMPLES)

Required, Yes \_\_\_\_\_ No X If Yes, complete Form II, Lab Analysis. If No, go to Part II, Gas.

II Gas

C. ON-SITE

D. BUILDINGS

Test

Holes Results

#1 \_\_\_\_\_  
#2 \_\_\_\_\_  
#3 \_\_\_\_\_  
#4 \_\_\_\_\_  
#5 \_\_\_\_\_

Test

Holes Results

#6 \_\_\_\_\_  
#7 \_\_\_\_\_  
#8 \_\_\_\_\_  
#9 \_\_\_\_\_  
#10 \_\_\_\_\_

Name/Address

1. 1020 O'Connor (apt) 0%  
2. 1016 O'Connor (apt) 0%  
3. Fina Station O'Connor & Curity 0%  
4. Kendall, 6 Curity Ave. 0%  
5. Allanson Mfg. Dohme Ave. 0%

Results

Name/Address

6. Accurate Rolal Ltd, Dohme Ave 0%  
7. AP Woodworking Ltd, Dohme Ave 0%  
8. East York Hydro, 3 Dohme 0%  
9. \_\_\_\_\_  
10. \_\_\_\_\_

Results

III General Comments (vegetation, leachate springs, depth, etc.) \_\_\_\_\_

(Detail all test point locations in a sketch on reverse side)

Form completed by: Nancy Rennie

S C A R B O R O U G H

|      |                                    |
|------|------------------------------------|
| 3005 | LADYBRIDGE DRIVE                   |
| 3006 | MCGREGOR STREET                    |
| 3009 | SINNOT ROAD & SHERRY ST            |
| 3017 | KENWORTHY & DANFORTH               |
| 3019 | SWANWICK AVE & VICTORIA PARK DRIVE |
| 4011 | MORNELLE COURT & MORNINGSIDE       |



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# OLD WASTE DISPOSAL SITE STUDY

Site Number... 3005

Location..... LADYBRIDGE DRIVE  
SCARBOROUGH

Morrison Beatty Limited

Gore & Storrie Limited



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# OLD WASTE DISPOSAL SITE STUDY

SITE NO. 3005

LOCATION

Ladybridge Drive

Scarborough

## Background

### Waste Disposal Practices

- Operated by the Borough of Scarborough in the 1950's as a domestic waste disposal site prior to its closure in 1959.
- According to one resident, their homes were built in 1960 without basements.
- The area is roughly 1 hectare in size with an estimated peak depth of 4 metres.
- Information sources include the adjacent residents.

### Land Uses

**Original** - The site was originally a ravine.

### Present Development

- On - site**
- Backyard of #75 and #79 Ladybridge.
  - The home of #75 had a pool installed in 1973 and during its installation, garbage was extracted.
  - Open vacant space.

**Abutting**

North - School playground.  
East - Highland Creek tributary.  
South - Single family dwellings of Ladybridge Drive.  
West - Vacant, access to open space through United Church property.

### Present Site Owner

- Borough of Scarborough.
- Registered Plan 4888, Block "C".



## Hydrogeologic Setting

### Geology

- regionally, the area is blanketed by a clayey silt till (Halton)

### Regional Drainage

- the site is at the crest of a ravine which is cut into the valley of Highland Creek
- the upland areas west of the site are serviced by storm sewers

## Disposal Site Detail

### Fill Characteristics

- the refuse at this site was placed in the upper portion of a deep-cut ravine
- the maximum depth of fill appears to be about 4 m
- the surface is vegetated and is rough-cut several times per year
- there is some uncertainty as to the extent of the fill onto 2 residential lots at 77 and 79 Ladybridge Crescent

### Topography and Drainage

- the surface of the fill slopes gradually eastward toward the deep-cut ravine
- a steep embankment occurs at the eastern edge of the fill, in the actual ravine; elsewhere, the fill surface blends in with the surrounding grades
- drainage on the site is excellent

## Identified Impact

### Settlement & Erosion

- there is about a 3 ft drop in elevation from the open field behind 73, 75 and 77 Ladybridge to the area where fill was placed
- this drop in elevation is due to settlement and continues around the perimeter of the filled area
- some erosion has taken place on the steep ravine bank

### Vegetation Stress

- patches of decayed vegetation covers much of the filled area

### Leachate

- significant leachate springs were observed at the toe of the landfill in the ravine to the east of the site; the leachate flow continued to the nearby tributary stream
- iron and conductivity measurements in the tributary stream increased significantly below the leachate discharge point

### Methane Gas

- methane gas was detected in two locations in the landfill area
- no methane was found in the field to the south, the backyards of 73 and 79 Ladybridge Drive or in any of the monitored buildings

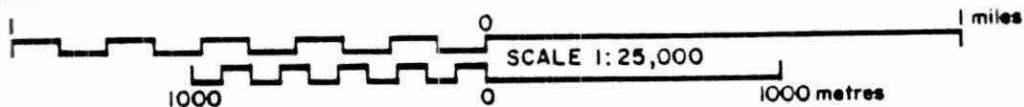
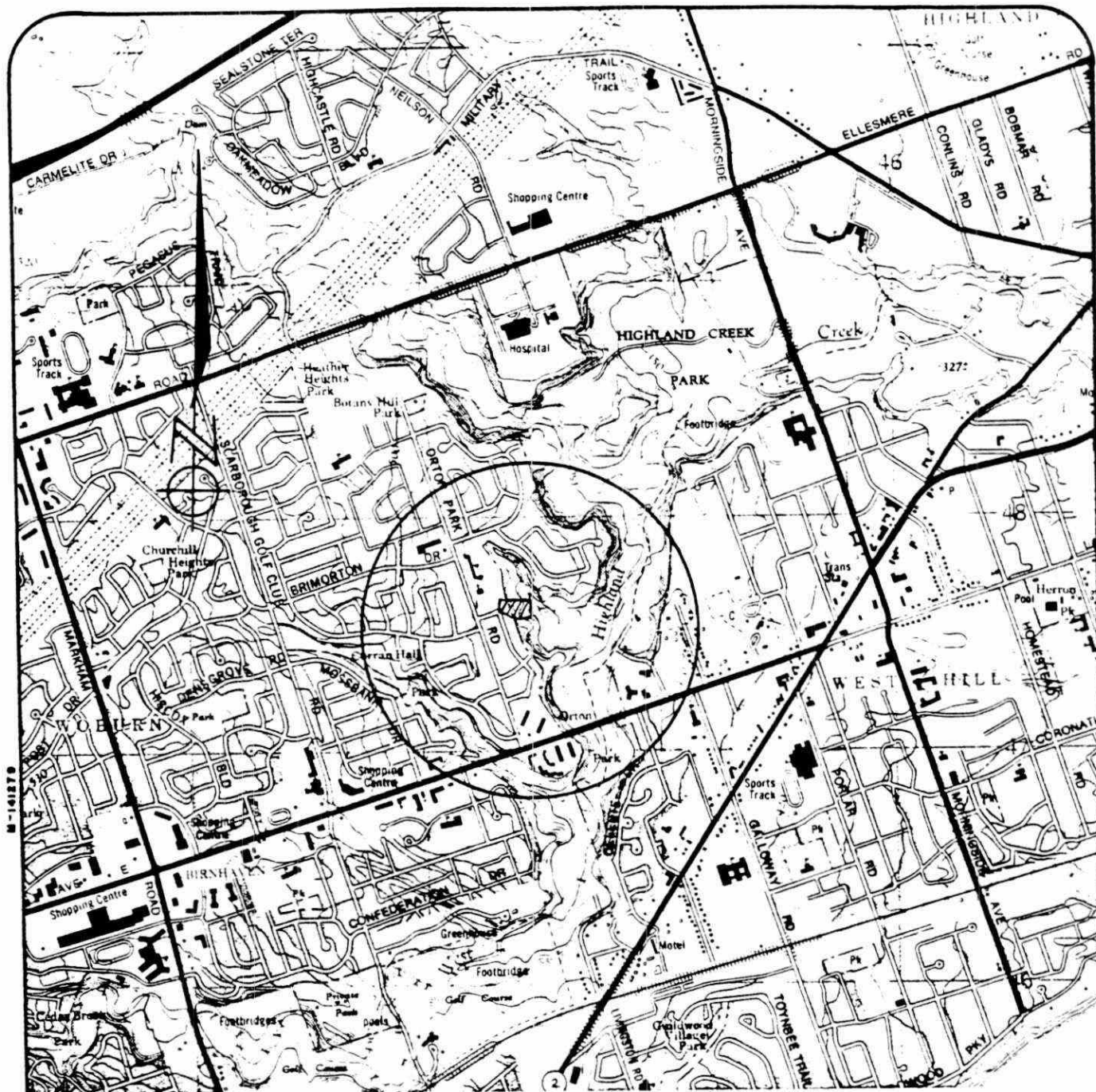
## Potential Impacts

- gas migration into the abutting homes at 77 and 79 Ladybridge Drive via sand lenses in the glacial till deposit

## Recommendations

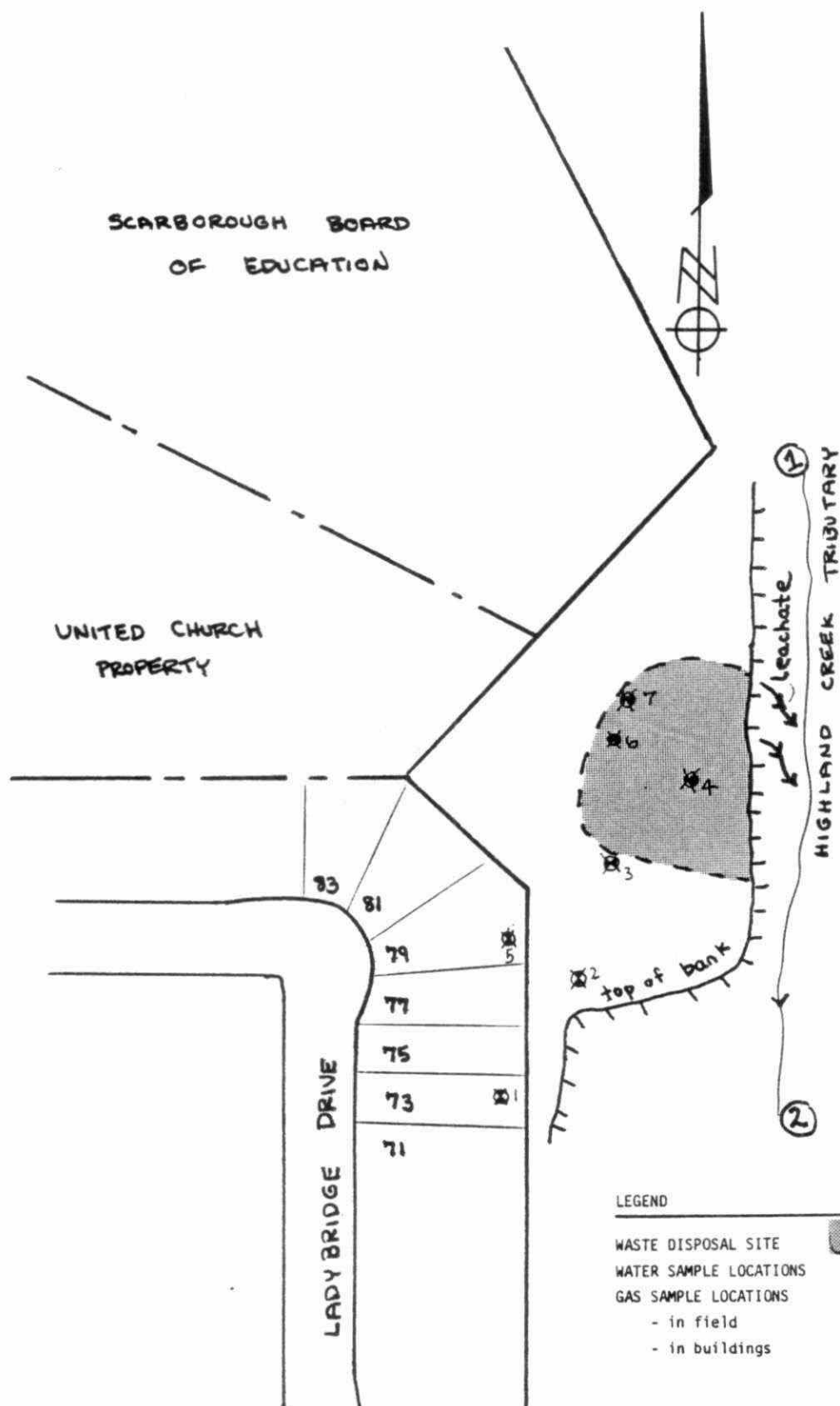
1. The disposal site and future uses should be permanently identified as follows:
  - (a) identify the "limits of fill" on the Official Plan,
  - (b) amend the Zoning By-law for the disposal site to restrict future uses,
  - (c) register a Notice on the title of the property with the Land Registrar which identifies the disposal site, the potential impacts and the restricted future uses,
  - (d) prohibit future residential development on the disposal site and a limited buffer zone around this site.
2. The Part II study should be carried out to assess the potential impacts. The study should include the following:
  - i) installation of multi-depth gas probes as set out in the Table below,
  - ii) monitoring of gas probes for methane concentration and ground and atmospheric air pressure every two weeks from November to May, and
  - iii) monitoring of methane gas in abutting buildings if the concentration in the ground outside the foundation exceeds 5% by volume.
3. The results of the monitoring program should be assessed to determine:
  - i) if monitoring can be terminated, in the event of no apparent hazard,
  - ii) if monitoring should be continued, in the event of an identified potential hazard,
  - iii) if permanent gas controls should be installed, in the event of a hazardous impact,
  - iv) minimum buffer zones for future development around the site.
4. The construction history of on-site and near-site buildings should be reviewed. The following should be examined:
  - i) soil investigation reports,
  - ii) reports of waste materials encountered during construction,
  - iii) plans of foundation design,
  - iv) details of special gas control systems, if any, and
  - v) details of gas monitoring program, if any.
5. A comprehensive analysis of leachate collected from the identified seepage points should be conducted.

| <u>LOCATION</u>                                                                | <u>ESTIMATED<br/>NUMBER</u> |
|--------------------------------------------------------------------------------|-----------------------------|
| - in the backyards of the properties of 73, 75, 77, 79 and 81 Ladybridge Drive | 5                           |



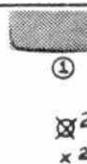
SITE NO. 3005 / Scarborough  
LADYBRIDGE DRIVE

Morrison Beatty Limited  
Gore & Storrie Limited



LEGEND

- WASTE DISPOSAL SITE
- WATER SAMPLE LOCATIONS
- GAS SAMPLE LOCATIONS
  - in field
  - in buildings



NOT TO SCALE

SITE NO. 3005 / Scarborough  
LADYBRIDGE DRIVE

Morrison Beatty Limited  
Gore & Storrie Limited





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# OLD WASTE DISPOSAL SITE STUDY

**SITE NO.**

3005



**Morrison Beatty Limited**  
**Gore & Storrie Limited**

DISPOSAL  
AREA



SCALE 1:4500





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Environment  
Ontario

(To be completed in duplicate, 1 copy to MOE Regional office, 1 copy to MOE Head office)

FORM I  
(Site Identification Study)

### SITE INSPECTION

MOE REGION CENTRAL REGION DATE Sept 26, 1980 SITE IDENTIFICATION CODE 3005  
SITE Ladybridge, Scarborough  
(Lot, concession #, or UTM coordinates, name, address)

#### ON-SITE TESTS

##### I Leachate

###### A. WATER BODIES WITHIN 100 METRES

| Parameter                  | mg/l | Results |     |   |   |   |   |   |   |   |    |
|----------------------------|------|---------|-----|---|---|---|---|---|---|---|----|
|                            |      | 1       | 2   | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1) Chlorides               |      | 397     | 275 |   |   |   |   |   |   |   |    |
| 2) pH                      |      | 7       | 7   |   |   |   |   |   |   |   |    |
| 3) Iron                    |      | 12      | 40  |   |   |   |   |   |   |   |    |
| 4) Alkalinity              |      | 342     | 342 |   |   |   |   |   |   |   |    |
| 5) Conductivity $\mu$ mhos |      | 700     | 870 |   |   |   |   |   |   |   |    |

###### B. WELLS WITHIN 100 METRES

| Parameter           | Results |   |   |   |   |   |   |   |   |    |
|---------------------|---------|---|---|---|---|---|---|---|---|----|
|                     | 1       | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1) Chlorides        |         |   |   |   |   |   |   |   |   |    |
| 2) Dissolved solids |         |   |   |   |   |   |   |   |   |    |
| 3) Iron             |         |   |   |   |   |   |   |   |   |    |
| 4) Alkalinity       |         |   |   |   |   |   |   |   |   |    |
| 5) Conductivity     |         |   |   |   |   |   |   |   |   |    |

Any significant odour problems Yes ☐ No ☒ Comments \_\_\_\_\_

#### LAB TESTS (2 LITRE SAMPLES)

Required, Yes ☐ No ☒ If Yes, complete Form II, Lab Analysis. If No, go to Part II, Gas.

##### II Gas

###### C. ON-SITE

| Test  | Results | Test  | Results |
|-------|---------|-------|---------|
| Holes |         | Holes |         |
| #1    | 0%      | #6    | 35%     |
| #2    | 0%      | #7    | 3%      |
| #3    | 0%      | #8    |         |
| #4    | 0%      | #9    |         |
| #5    | 0%      | #10   |         |

###### D. BUILDINGS

| Name/Address                  | Results | Name/Address                   | Results |
|-------------------------------|---------|--------------------------------|---------|
| 1.73 Ladybridge               | 0%      | 6. 81 Ladybridge (no one home) |         |
| 2.71 Ladybridge (no one home) |         | 7. _____                       |         |
| 3.75 Ladybridge (no one home) |         | 8. _____                       |         |
| 4.77 Ladybridge               | 0%      | 9. _____                       |         |
| 5.79 Ladybridge               | 0%      | 10. _____                      |         |

III General Comments (vegetation, leachate springs, depth, etc.) \_\_\_\_\_

(Detail all test point locations in a sketch on reverse side)

Form completed by: Nancy Rennie



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# OLD WASTE DISPOSAL SITE STUDY

Site Number... 3006

Location..... MCGREGOR STREET  
SCARBOROUGH

Morrison Beatty Limited

Gore & Storrie Limited



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of the  
Environment

# OLD WASTE DISPOSAL SITE STUDY

SITE NO. 3006

LOCATION

McGregor Road

Scarborough

## Background

### Waste Disposal Practices

- Operated by the former Township of Scarborough for a small period of time in 1955 and 1956 as a domestic waste disposal site.
- The depth of fill is approximately 2-3 metres. While excavating to install lighting posts, newspapers were dug up acknowledging the 1955 era of garbage.
- The area of the site where domestic solid wastes were disposed is estimated at roughly one hectare.
- Information sources included Messrs. Walton and Polson, Works Department, Borough of Scarborough; and, General Crerar's janitor of 25 years, Mr. Percy; and other residents.

### Land Uses

#### Original

- Open field between the Sir Winston Churchill Secondary School and General Crerar Public School.

### Present Development

#### On - site

- Playground for the General Crerar Public School.

#### Abutting

- East - Winston Churchill Collegiate, playfield and residential homes.
- West - 13 residential homes on Ashdean Avenue.
- South - General Crerar Public School and parking lot.
- North - Swimming pool and arena.

### Present Site Owner

- Borough of Scarborough School Board.
- Scarborough Parks and Recreation Department.

Morrison Beatty Limited | Gore & Storrie Limited

## Hydrogeologic Setting

### Geology

- regionally, the area is blanketed by a clayey silt till (Halton)

### Regional Drainage

- the site is within the watershed of Massey Creek; however, there are no streams in the vicinity
- the entire area is serviced by storm sewers

## Disposal Site Detail

### Fill Characteristics

- the refuse at this site was placed in the backyard playground area of General Grerar Public School; apparently this was originally a low, depressed area that was filled to raise the yard to the school grade
- the fill depth is estimated to be 2.0 to 3.0 m

### Topography and Drainage

- the entire site is grassed with the exception of a ball diamond
- the fill surface is nearly flat; however, good drainage is achieved through the permable fill, since the fill area is elevated somewhat above the surrounding grades

M-141279



## Identified Impact

### Settlement & Erosion

- there are settlement depressions over much of the site
- erosion is not a problem at this site

### Vegetation Stress

- there are patches of decayed vegetation over much of the site indicating the presence of methane gas
- the yard has had to be resodded several times

### Leachate

- leachate is not a problem at this site

### Methane Gas

- methane gas was detected at several locations in the south central area of the fill site, where vegetation stress is the greatest
- concentrations of 25% were measured at two locations in the fill

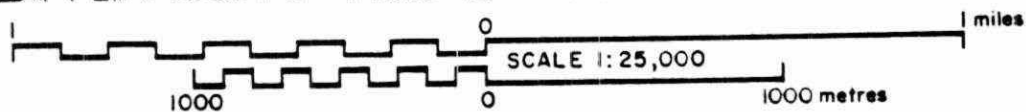
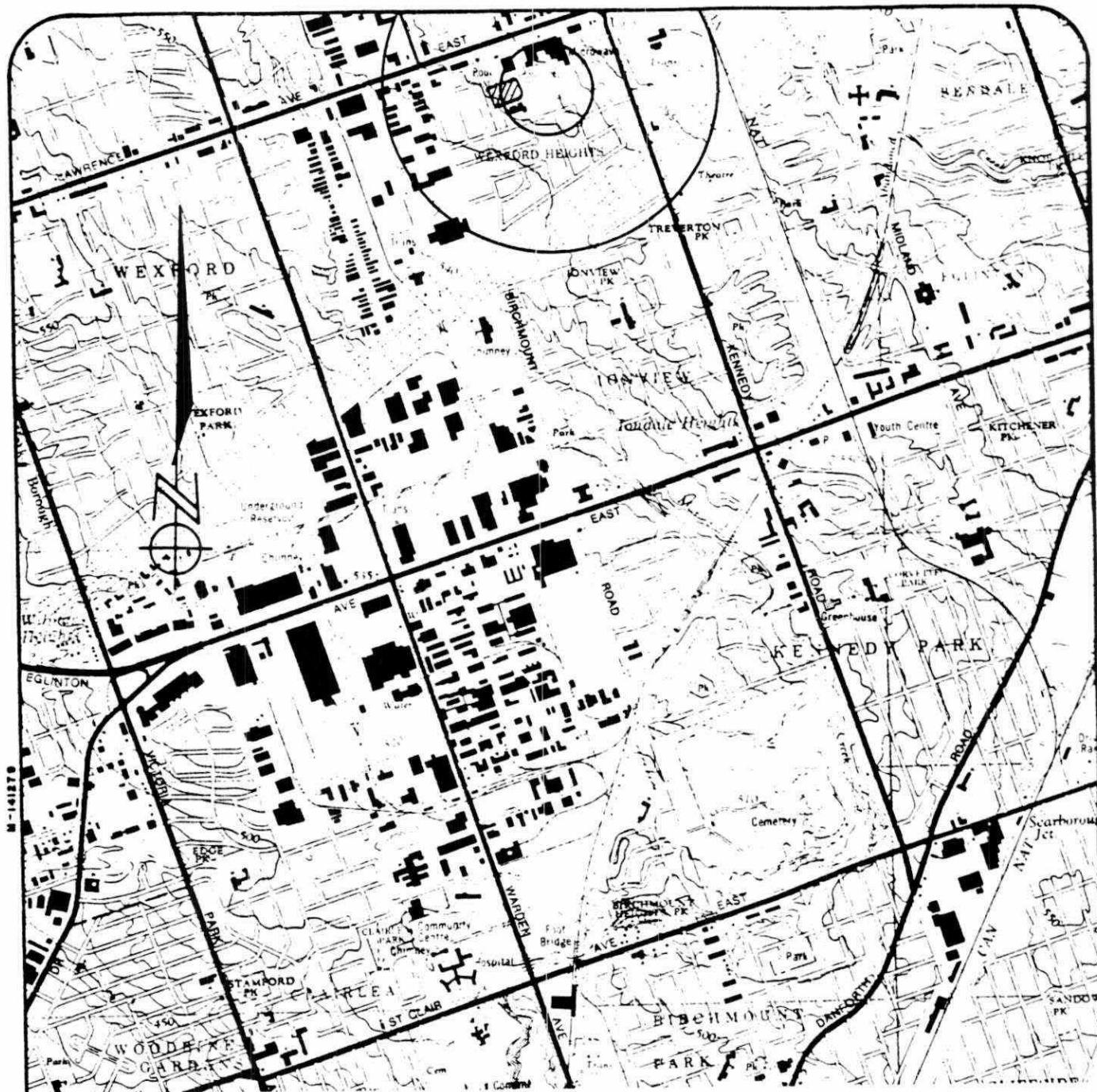
## Potential Impacts

- gas migration into General Creer Public School via granular bedding beneath the parking lot or service trenches
- gas migration to the houses on Ashdean Drive, which abuts the site to the west, via granular bedding in the service trenches or sand lenses in the glacial till

## Recommendations

1. The disposal site and future uses should be permanently identified as follows:
  - (a) identify the "limits of fill" on the Official Plan,
  - (b) amend the Zoning By-law for the disposal site to restrict future uses,
  - (c) register a Notice on the title of the property with the Land Registrar which identifies the disposal site, the potential impacts and the restricted future uses,
  - (d) prohibit future residential development on the disposal site and a limited buffer zone around this site.
2. The Part II study should be carried out to assess the potential impacts. The study should include the following:
  - i) installation of multi-depth gas probes as set out in the Table below,
  - ii) monitoring of gas probes for methane concentration and ground and atmospheric air pressure every two weeks from November to May, and
  - iii) monitoring of methane gas in abutting buildings if the concentration in the ground outside the foundation exceeds 5% by volume.
3. The results of the monitoring program should be assessed to determine:
  - i) if monitoring can be terminated, in the event of no apparent hazard,
  - ii) if monitoring should be continued, in the event of an identified potential hazard,
  - iii) if permanent gas controls should be installed, in the event of a hazardous impact, and
  - iv) minimum buffer zones for future development around the site.

| <u>LOCATION</u>                                                        | <u>ESTIMATED<br/>NUMBER</u> |
|------------------------------------------------------------------------|-----------------------------|
| - in the parking lot between the fill and General Crerar Public School | 4                           |
| - in the backyards of properties abutting the fill on Ashdean Drive    | 10                          |



SITE NO. 3006  
Mc GREGER ST., Scarborough

Morrison Beatty Limited  
Gore & Storrie Limited

SITE NO. 3006  
Mc GREGER ST., Scarborough

Morrison Beatty Limited  
Gore & Storrie Limited

### LEGEND

WASTE DISPOSAL SITE

WATER SAMPLE LOCATIONS

### GAS SAMPLE LOCATIONS

- in field
- in buildings

①

✕



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# OLD WASTE DISPOSAL SITE STUDY

**SITE NO.**

3006



**Morrison Beatty Limited**  
**Gore & Storrie Limited**

DISPOSAL  
AREA



SCALE 1:10 000







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(To be completed in duplicate, 1 copy to MOE Regional office, 1 copy to MOE Head office)

FORM I  
(Site Identification Study)

### SITE INSPECTION

MOE REGION CENTRAL REGION DATE Sept. 24, 1980 SITE IDENTIFICATION CODE 3006  
SITE McGregor St., Scarborough, General Crerar Public School  
(Lot, concession #, or UTM coordinates, name, address)

#### ON-SITE TESTS

##### I Leachate

A. WATER BODIES WITHIN 100 METRES None

Parameter

Results

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

B. WELLS WITHIN 100 METRES

Parameter

Results

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

Any significant odour problems Yes        No X Comments       

#### LAB TESTS (2 LITRE SAMPLES)

Required, Yes        No X If Yes, complete Form II, Lab Analysis. If No, go to Part II, Gas.

##### II Gas

C. ON-SITE

D. BUILDINGS

Test

Test

Holes

Results

Holes

Results

Name/Address

Results

Name/Address

Results

#1

25%

#6

0%

1. General Crerar Public School

6.3 Ashdean (would not allow)

#2

0%

#7

25%

2. McGregor St.

0%

7.5 Ashdean

0%

#3

0%

#8

0%

3. McGregor Park Arena

0%

8.7 Ashdean

0%

#4

0%

#9

4. W. Churchill Colleg. Lawrence

0%

9.9 Ashdean (no one home)

#5

trace

#10

5. 1 Ashdean Dr. (no one home)

10.11 Ashdean

0%

III General Comments (vegetation, leachate springs, depth, etc.)       

(Detail all test point locations in a sketch on reverse side)

Form completed by: Nancy Rennie



SITE INSPECTION

MOE REGION \_\_\_\_\_ DATE \_\_\_\_\_ SITE IDENTIFICATION CODE \_\_\_\_\_ 3006 - Page 2

SITE McGregor St. General Crerar Public School cont'd  
(Lot, concession #, or UTM coordinates, name, address)

ON-SITE TESTS

I Leachate

A. WATER BODIES WITHIN 100 METRES

Parameter

Results

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

B. WELLS WITHIN 100 METRES

Parameter

Results

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

Any significant odour problems Yes \_\_\_\_\_ No \_\_\_\_\_ Comments \_\_\_\_\_

LAB TESTS (2 LITRE SAMPLES)

Required, Yes \_\_\_\_\_ No \_\_\_\_\_ If Yes, complete Form II, Lab Analysis. If No, go to Part II, Gas.

II Gas

C. ON-SITE

D. BUILDINGS

Test

Test

Holes Results

Holes Results

Name/Address

Results

Name/Address

Results

#1 \_\_\_\_\_  
#2 \_\_\_\_\_  
#3 \_\_\_\_\_  
#4 \_\_\_\_\_  
#5 \_\_\_\_\_

#6 \_\_\_\_\_  
#7 \_\_\_\_\_  
#8 \_\_\_\_\_  
#9 \_\_\_\_\_  
#10 \_\_\_\_\_

1. 15 Ashdean (no one home)  
2. 17 Ashdean (no one home)  
3. 19 Ashdean (no one home)  
4. 21 Ashdean (no one home)  
5. 23 Ashdean

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
0%

6. 25 Ashdean 0%  
7. 27 Ashdean (no one home)  
8. 29 Ashdean (had to leave immed)  
9. 46 Hollingworth Drive (no one home)  
10. \_\_\_\_\_

III General Comments (vegetation, leachate springs, depth, etc.) \_\_\_\_\_

(Detail all test point locations in a sketch on reverse side)

Form completed by: Nancy Rennie



Ontario

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# OLD WASTE DISPOSAL SITE STUDY

Site Number... 3009

Location..... SINNOT ROAD & SHERRY ST  
SCARBOROUGH

Morrison Beatty Limited

Gore & Storrie Limited



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Environment

# OLD WASTE DISPOSAL SITE STUDY

SITE NO. 3009

LOCATION Sinnott

Rd. & Eglinton Ave.

Scarborough

## Background

### Waste Disposal Practices

- Operated by the former Township of Scarborough as a municipal waste disposal site for a short period of time in 1954 and 1955. The purpose was to fill in a reservoir which was originally used for fire fighting purposes.
- The site appears to be about 1-2 hectares in size. The depth of waste is approximately 3 metres with about 1 metre of cover material.
- Information sources were Messrs. Walton and Polson, Works Department, Borough of Scarborough.

### Land Uses

#### Original

- An emergency water reservoir for fire fighting purposes for Keco Industries.

### Present Development

#### On - site

- Vacant open land.

#### Abutting

- North - Industrial buildings; SKF Industries.
- West - Industrial buildings.
- South - Vacant.
- East - Vacant.

### Present Site Owner

- SKF Industries Ltd.

## Hydrogeologic Setting

### Geology

- regionally, the area is blanketed by a clayey silt till (Halton)

### Regional Drainage

- the site is within the Massey Creek watershed
- a tributary stream to Massey Creek rises on the property; however, it is not a perennial stream
- the surrounding area is serviced by storm sewers

## Disposal Site Detail

### Fill Characteristics

- the fill occupies a ground-storage reservoir that was used for fire fighting supply
- the refuse is about 3 m in depth
- the site is vegetated with grass which is rough-cut several times per year

### Topography and Drainage

- the surface of the fill is virtually flat
- drainage on the property is poor due to the slowly permeable till and flat grades



## Identified Impact

### Settlement & Erosion

- minor signs of settlement in the former reservoir area
- erosion is not a problem at this site

### Vegetation Stress

- a few patches of decayed vegetation were observed

### Leachate

- there was no evidence of leachate seepage at the site

### Methane Gas

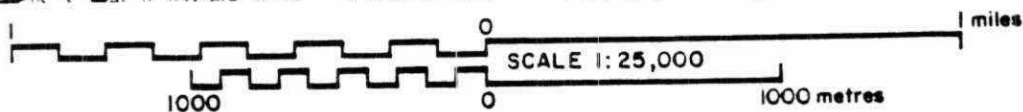
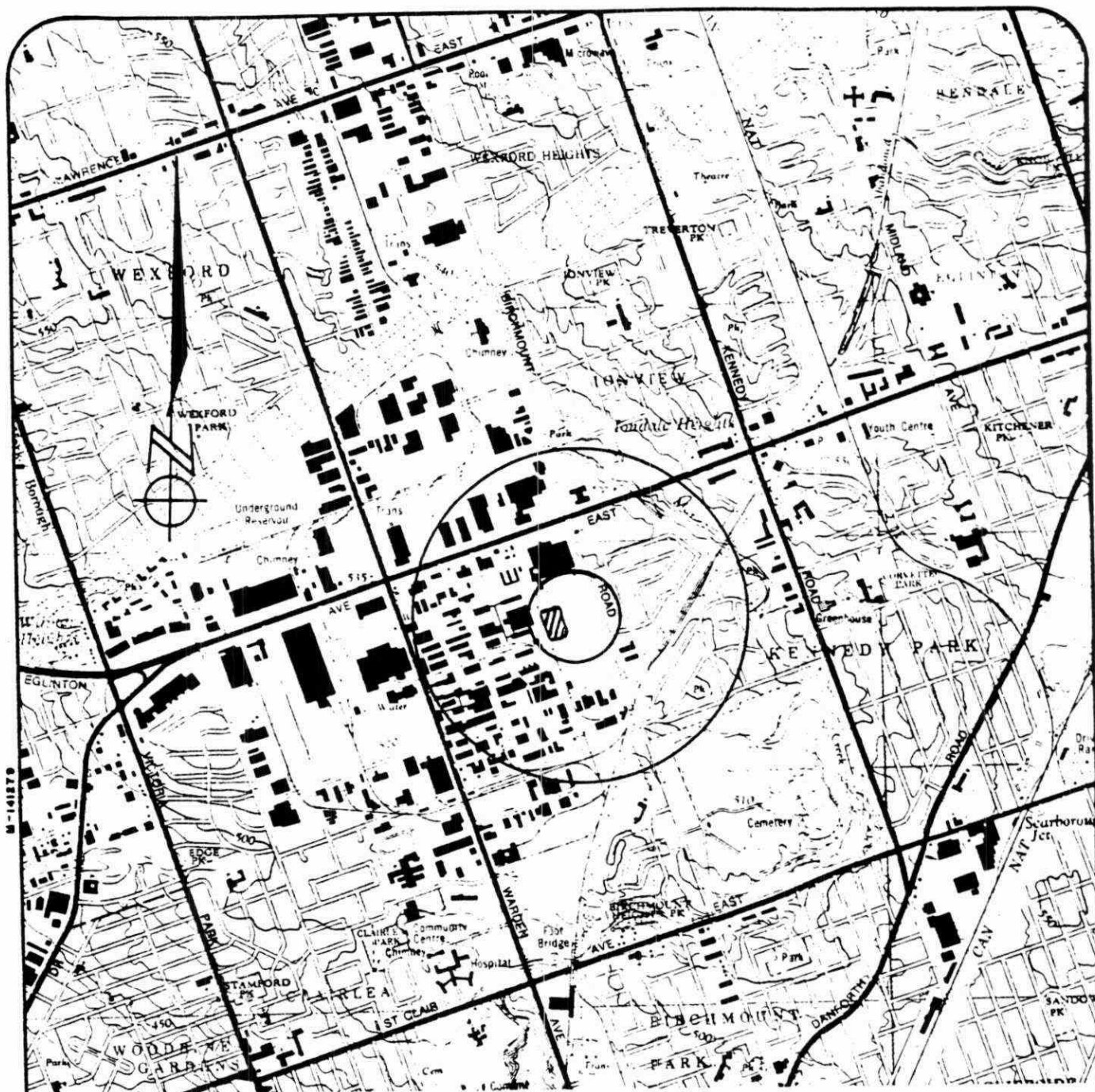
- methane gas was detected at several locations in the waste disposal area
- no methane was detected in any of the monitored buildings

## Potential Impacts

- gas migration into the SKF Industries pumphouse and storage shed; however, these are only used for storage purposes; they are open to the outside environment and well ventilated

## Recommendations

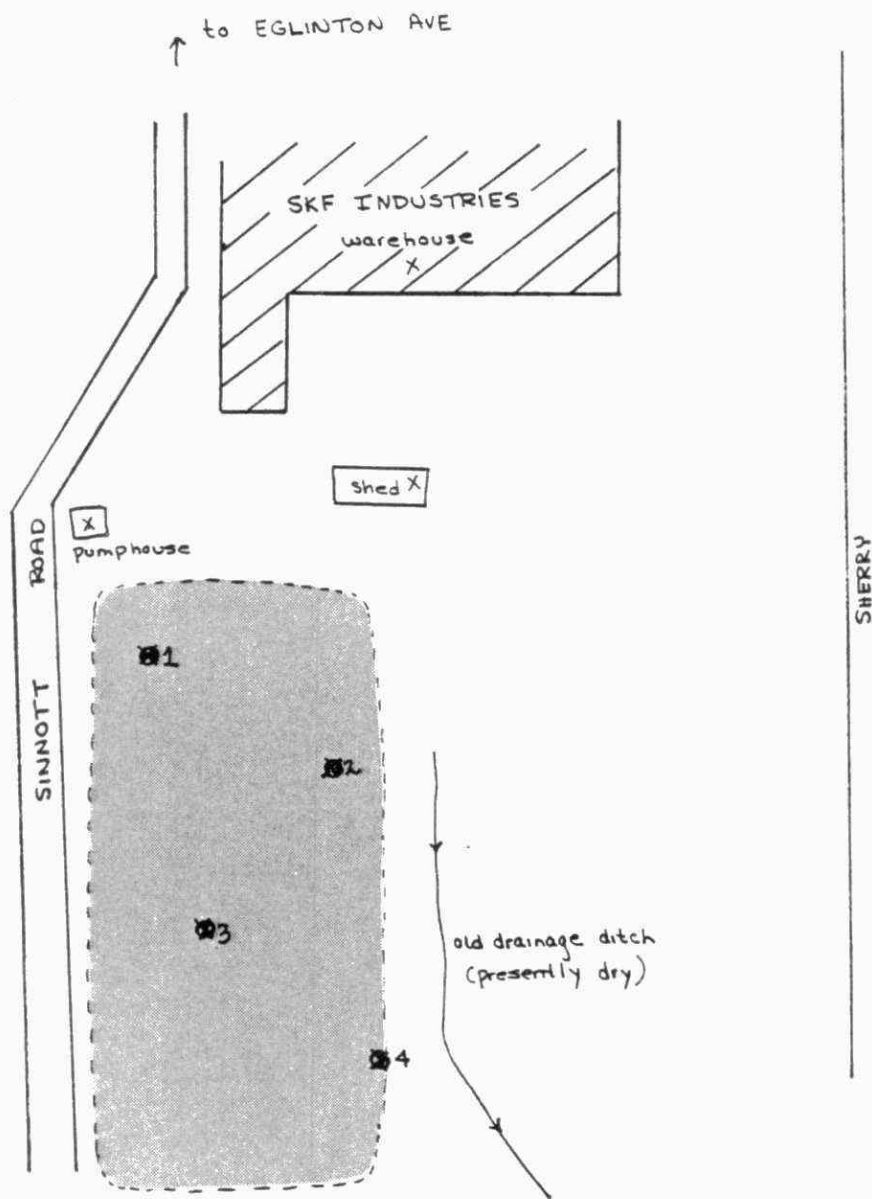
1. The disposal site and future uses should be permanently identified as follows:
  - (a) identify the "limits of fill" on the Official Plan,
  - (b) amend the Zoning By-law for the disposal site to restrict future uses.
  - (c) register a Notice on the title of the property with the Land Registrar which identifies the disposal site, the potential impacts and the restricted future uses,
  - (d) prohibit future residential development on the disposal site and a limited buffer zone around the site.
2. No further studies are required.



SITE NO. 3009  
SINNOTT RD., Scarborough

Morrison Beatty Limited  
Gore & Storrie Limited

M-221080



LEGEND

- WASTE DISPOSAL SITE
- WATER SAMPLE LOCATIONS ①
- GAS SAMPLE LOCATIONS
- in field ②
  - in buildings x 2

NOT TO SCALE

SITE NO. 3009  
SINNOTT RD., Scarborough

Morrison Beatty Limited  
Gore & Storrie Limited



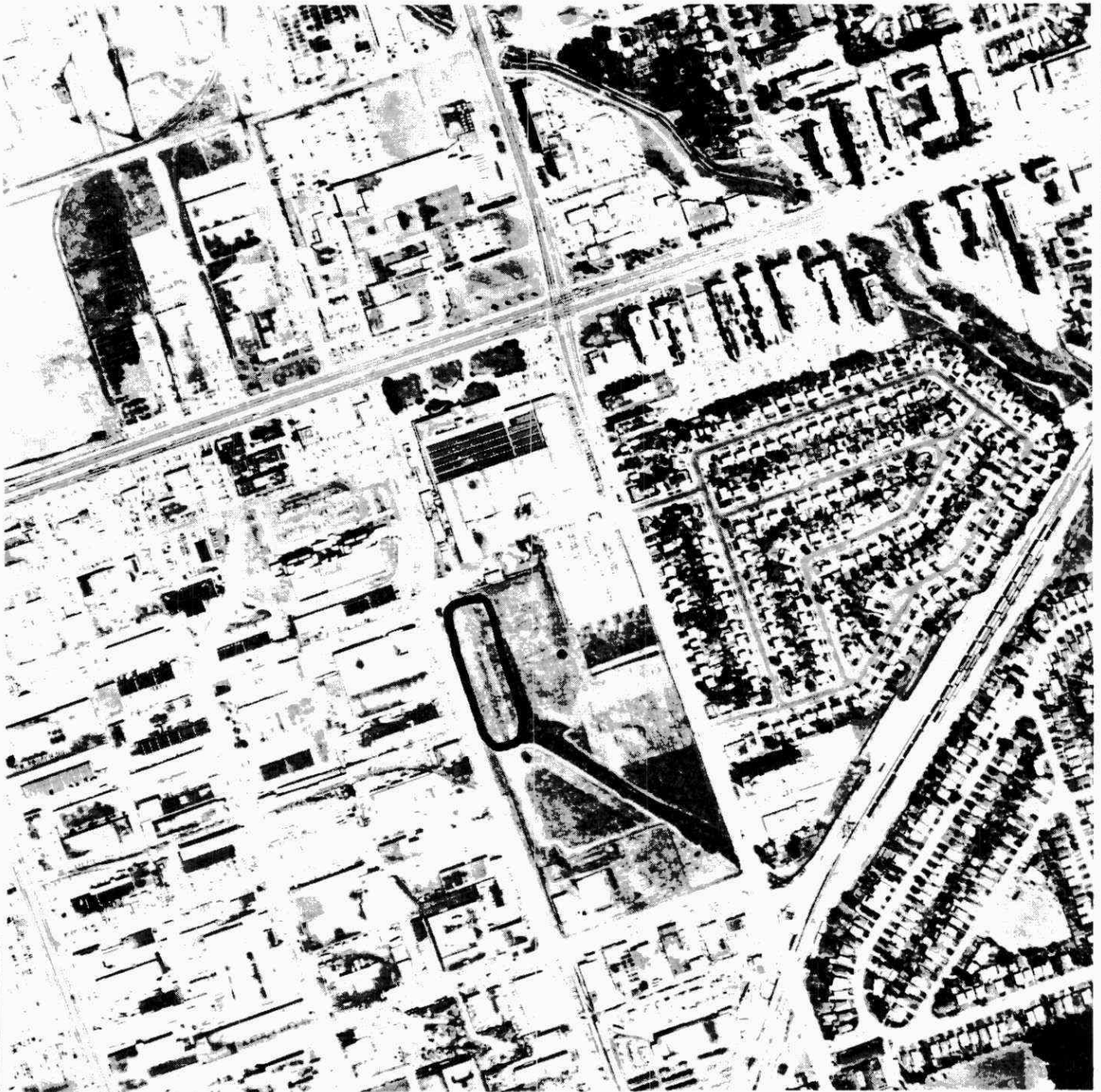
Ministry  
of the  
Environment

Ontario

# OLD WASTE DISPOSAL SITE STUDY

SITE NO.

3009



Morrison Beatty Limited  
Gore & Storrie Limited

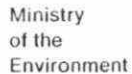
DISPOSAL  
AREA



SCALE 1:6670







FORM I  
(Site Identification Study)

MOE REGION CENTRAL REGION DATE Sept 24, 1980 SITE IDENTIFICATION CODE 3009  
SITE Sinnott Rd and Eglinton Ave. SKF Industries  
(Lot, concession #, or UTM coordinates, name, address)

A. WATER BODIES WITHIN 100 METRES None

## Results

[illegible]

B. WELLS WITHIN 100 METRES

Parameter

## Results

[illegible]

| Any significant odour problems | Yes | No | X | Comments |
|--------------------------------|-----|----|---|----------|
|                                |     |    |   |          |

Required, Yes \_\_\_\_\_ No X If Yes, complete Form II, Lab Analysis. If No, go to Part II, Gas.

### C. ON-SITE

#### D. BUILDINGS

| Test Holes | Results |
|------------|---------|
| #1         | 0%      |
| #2         | 0%      |
| #3         | 8%      |
| #4         | 11%     |
| #5         |         |

| Test Holes | Results |
|------------|---------|
| #6         |         |
| #7         |         |
| #8         |         |
| #9         |         |
| #10        |         |

| Name/Address        | Results |
|---------------------|---------|
| 1. SKF Storage Shed | 0%      |
| 2. SKF Warehouse    | 0%      |
| 3. SKF Pumphouse    | 0%      |
| 4. _____            | _____   |
| 5. _____            | _____   |

| Name/Address | Results |
|--------------|---------|
| 6. _____     | _____   |
| 7. _____     | _____   |
| 8. _____     | _____   |
| 9. _____     | _____   |
| 10. _____    | _____   |

III General Comments (vegetation, leachate springs, depth, etc.)

(Detail all test point locations in a sketch on reverse side)

Form completed by: Nancy Rennie



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# OLD WASTE DISPOSAL SITE STUDY

Site Number... 3017

Location..... KENWORTHY & DANFORTH  
SCARBOROUGH

Morrison Beatty Limited

Gore & Storrie Limited



Ontario

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of the  
Environment

# OLD WASTE DISPOSAL SITE STUDY

SITE NO. 3017

LOCATION

Kenworthy & Danforth

Scarborough

## Background

### Waste Disposal Practices

- Operated as a domestic solid waste disposal site in the pre-war era, possibly in the 1920's through to the 1945 period.
- Very little data exists on the use and operation of the site.
- Due to the common practice of burning of wastes individually that existed at this time, it is believed that the wastes in the site are mostly ashes and rubble.
- The site is difficult to define in terms of size, but, it is estimated at less than a hectare.
- The Borough of Scarborough has no records of the site.

### Land Uses

#### Original

- Appears to be a worked out gravel pit.

### Present Development

#### On - site

- Paved parking lot.
- Norse Automotive.

#### Abutting

- North - Commercial buildings, Auto-parts shop, Danforth Avenue.
- West - Kenworthy Avenue, residential buildings.
- South - Mansion Drive, auto-refinishers.
- East - Elward Blvd., residential homes.

### Present Site Owner

- Private commercial owners.
- Norse Automotive.

## Hydrogeologic Setting

### Geology

- the surrounding area is underlain by beach deposits of sand and gravel from Lake Iroquois

### Regional Drainage

- the site is about 1.5 km from Lake Ontario and there are no watercourses in the area
- drainage appears to be excellent due to the presence of the permeable sand and gravel deposits

## Disposal Site Detail

### Fill Characteristics

- the fill appears to have been disposed of in a worked-out sand and gravel pit; however, this was not confirmed
- all of the site, except a narrow strip along the west side has been paved
- the fill appears to be about 2 m in depth

### Topography and Drainage

- the surface of the fill is flat; drainage from the parking lot is intercepted by storm sewers
- a 2 m high embankment abuts the residential lots to the west; elsewhere, the fill blends with the surrounding grades

## Identified Impact

### Settlement & Erosion

- no evidence of settlement except for some depressions in the parking lot area
- the Norse Automotive building, apparently built on fill has no obvious signs of settlement cracks or other structural problems

### Vegetation Stress

- area is almost completely covered over by pavement
- vegetation stress was not observed

### Leachate

- leachate is not a problem at this site

### Methane Gas

- no methane gas was recorded in the site or in any of the monitored buildings

## Potential Impacts

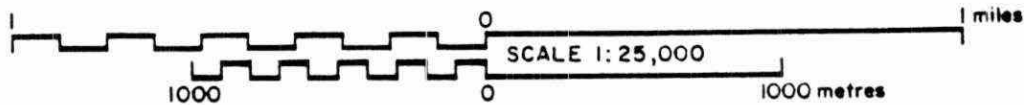
- providing the wastes are comprised of ash, as reported, we do not anticipate any future impacts at this site



## Recommendations

1. The disposal site and future uses should be permanently identified as follows:
  - (a) identify the "limits of fill" on the Official Plan,
  - (b) amend the Zoning By-law for the disposal site to restrict future uses,
  - (c) register a Notice on the title of the property with the Land Registrar which identifies the disposal site, the potential impacts and the restricted future uses,
  - (d) prohibit future residential development on the disposal site and a limited buffer zone around the site.
2. No further studies are required.

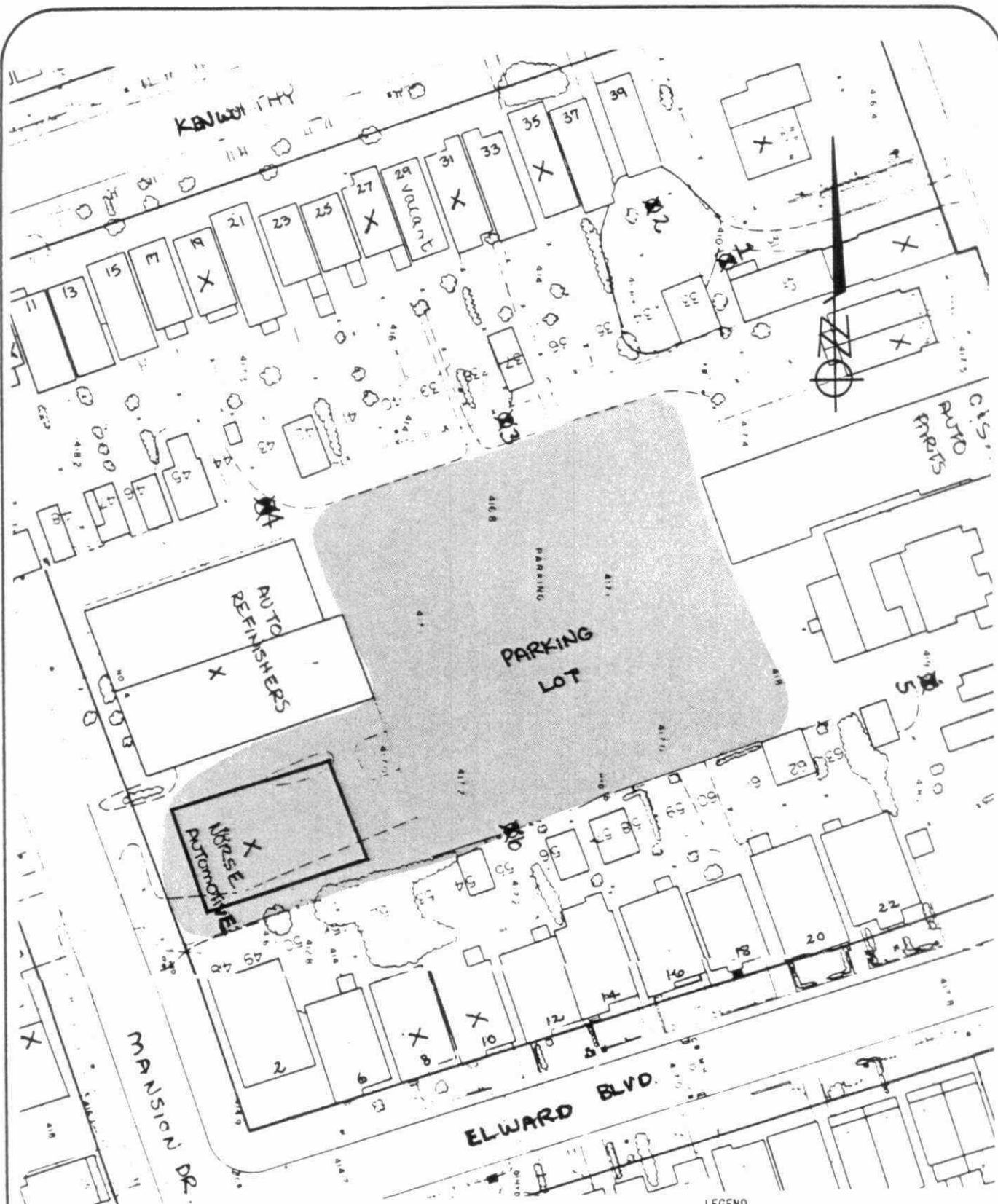
M-141279



SITE NO. 3017 / Scarborough  
KENWORTH & DANFORTH

Morrison Beatty Limited  
Gore & Storrie Limited

M-221080



LEGEND

- WASTE DISPOSAL SITE
- WATER SAMPLE LOCATIONS ①
- GAS SAMPLE LOCATIONS
  - in field
  - in buildings

NOT TO SCALE

SITE NO. 3017 / Scarborough  
KENWORTH & DANFORTH

Morrison Beatty Limited  
Gore & Storrie Limited



Ontario

Ministry  
of the  
Environment

# OLD WASTE DISPOSAL SITE STUDY

SITE NO.

3017



Morrison Beatty Limited  
Gore & Storrie Limited

DISPOSAL  
AREA



SCALE 1:6670







Ministry  
of the  
Environment  
Ontario

(To be completed in duplicate, 1 copy to MOE Regional office, 1 copy to MOE Head office)

FORM I  
(Site Identification Study)

### SITE INSPECTION

MOE REGION CENTRAL REGION DATE Sept 25, 1980 SITE IDENTIFICATION CODE 3017  
SITE Kenworthy and Danforth  
(Lot, concession #, or UTM coordinates, name, address)

#### ON-SITE TESTS

#### I Leachate

A. WATER BODIES WITHIN 100 METRES None

B. WELLS WITHIN 100 METRES

Parameter

Results

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

Parameter

Results

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

Any significant odour problems Yes        No X Comments       

#### LAB TESTS (2 LITRE SAMPLES)

Required, Yes        No X If Yes, complete Form II, Lab Analysis. If No, go to Part II, Gas.

#### II Gas

C. ON-SITE

D. BUILDINGS

Test

Test

Holes

Results

Holes

Results

Name/Address

Results

Name/Address

Results

#1

0%

#6

0%

1. 19 Kenworthy

0%

6. 33 Kenworthy (no admittance)

#2

0%

#7

2. 21, 23, 25 Kenworthy (no one home)

7. 35 Kenworthy

0%

#3

trace

#8

3. 27 Kenworthy

0%

8. 37 Kenworthy (no one home)

#4

0%

#9

4. 29 Kenworthy (vacant)

9. 39 Kenworthy (no one home)

#5

0%

#10

5. 31 Kenworthy

0%

10. C&G Auto Refinishing

0%

III General Comments (vegetation, leachate springs, depth, etc.) 4 Mansion Dr.

(Detail all test point locations in a sketch on reverse side)

Form completed by: Nancy Rennie





SITE INSPECTION

MOE REGION \_\_\_\_\_ DATE \_\_\_\_\_ SITE IDENTIFICATION CODE 3017 - Page 2

SITE Kenworthy and Danforth cont'd  
(Lot, concession #, or UTM coordinates, name, address)

ON-SITE TESTS

I Leachate

A. WATER BODIES WITHIN 100 METRES

Parameter

Results

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

B. WELLS WITHIN 100 METRES

Parameter

Results

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

Any significant odour problems Yes \_\_\_\_\_ No \_\_\_\_\_ Comments \_\_\_\_\_

LAB TESTS (2 LITRE SAMPLES)

Required, Yes \_\_\_\_\_ No \_\_\_\_\_ If Yes, complete Form II, Lab Analysis. If No, go to Part II, Gas.

II Gas

C. ON-SITE

D. BUILDINGS

Test

Holes Results

#1 \_\_\_\_\_  
#2 \_\_\_\_\_  
#3 \_\_\_\_\_  
#4 \_\_\_\_\_  
#5 \_\_\_\_\_

Test

Holes Results

#6 \_\_\_\_\_  
#7 \_\_\_\_\_  
#8 \_\_\_\_\_  
#9 \_\_\_\_\_  
#10 \_\_\_\_\_

Name/Address

1. 16 Mansion, Nourse Automotive Results 0%  
2. 19 Mansion, Lino's Garage Results 0%  
3. 9 Mansion, Railside Results 0%  
4. Fabricating Co.  
5. 1 Kenworthy Results 0%

Name/Address

6. 3 Kenworthy Results 0%  
7. 7 Kenworthy Results 0%  
8. 9 Kenworthy (no one home)  
9. 11, 13, 15 Kenworthy (no one home)  
10. 17 Kenworthy Results 0%  
6 Elward Blvd. (no one home)

III General Comments (vegetation, leachate springs, depth, etc.) \_\_\_\_\_

(Detail all test point locations in a sketch on reverse side)

Form completed by: \_\_\_\_\_



Ministry  
of the  
Environment  
Ontario

(To be completed in duplicate, 1 copy to MOE Regional office, 1 copy to MOE Head office)

FORM I  
(Site Identification Study)

### SITE INSPECTION

MOE REGION \_\_\_\_\_ DATE \_\_\_\_\_ SITE IDENTIFICATION CODE 3017 - Page 3  
SITE Kenworthy and Danforth cont'd  
(Lot, concession #, or UTM coordinates, name, address)

#### ON-SITE TESTS

##### I Leachate

###### A. WATER BODIES WITHIN 100 METRES

###### Parameter

###### Results

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

###### B. WELLS WITHIN 100 METRES

###### Parameter

###### Results

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

Any significant odour problems Yes \_\_\_\_\_ No \_\_\_\_\_ Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### LAB TESTS (2 LITRE SAMPLES)

Required, Yes \_\_\_\_\_ No \_\_\_\_\_ If Yes, complete Form II, Lab Analysis. If No, go to Part II, Gas.

##### II Gas

###### C. ON-SITE

###### D. BUILDINGS

###### Test

Holes Results

###### Test

Holes Results

Name/Address

Results

Name/Address

Results

|    |       |     |       |                                         |       |                                 |       |
|----|-------|-----|-------|-----------------------------------------|-------|---------------------------------|-------|
| #1 | _____ | #6  | _____ | 1.8 Elward Blvd                         | 0%    | 6.3317 Danforth (no admittance) | _____ |
| #2 | _____ | #7  | _____ | 2.10 Elward Blvd                        | 0%    | 7.3315 Danforth (vacant)        | _____ |
| #3 | _____ | #8  | _____ | 3.12 Elward Blvd (no one home)          | _____ | 8. Mansion House Tavern         | _____ |
| #4 | _____ | #9  | _____ | 4.14,16,18,20 E ward Blvd (no one home) | _____ | 9.3211 Danforth (Auto Parts)    | 0%    |
| #5 | _____ | #10 | _____ | 5.22 Elward Blvd (no admittance)        | _____ | 10.3209 Danforth                | 0%    |
|    |       |     |       |                                         |       | 3207 Danforth (no one home)     | _____ |
|    |       |     |       |                                         |       | 3205 Danforth                   | 0%    |

III General Comments (vegetation, leachate springs, depth, etc.) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(Detail all test point locations in a sketch on reverse side)

Form completed by: Nancy Rennie



Ontario

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# OLD WASTE DISPOSAL SITE STUDY

Site Number... 3019

Location..... SWANWICK AVE & VICTORIA PARK  
DRIVE  
SCARBOROUGH

Morrison Beatty Limited

Gore & Storrie Limited



Ontario

Ministry  
of the  
Environment

# OLD WASTE DISPOSAL SITE STUDY

SITE NO. 3019

LOCATION Swanwick  
& Victoria Park Aves.  
Scarborough

## Background

### Waste Disposal Practices

- Operated by the former Township of Scarborough as a municipal waste disposal site prior to 1928. The Borough of Scarborough does not have records nor do they have any recollection of the site.
- Residents and the school janitor were able to assist in information. While installing trees at the west end of the school yard, garbage was found
- 1 m below the surface. Some homes along Swanwick Avenue have had main drain pipes severed due to settling. One resident excavated around his home during our inspection and he pulled out old car parts, broken pipes, metal, etc.; concrete patio stones had settling over 30.0 cm.
- The site is estimated at 4 hectares filled mostly with ashes.

### Land Uses

Original - Sand and gravel pit.

### Present Development

On - site

- Blantyne Public School.
- Houses on north side of Swanwick.
- Rear yards of houses on Victoria Park Ave., Swanwick Ave., Blantyne Ave., and school yard.

Abutting

- West - 17 houses on the east side of Victoria Park Ave.
- North - Houses on Linton Ave. to the north of the site.
- South - 21 houses on the north side of Winston Ave.
- East - Blantyne Public School on the east part of the site.

### Present Site Owner

- Borough of Scarborough.
- Multiowners of private properties.

Morrison Beatty Limited | Gore & Storrie Limited

## Hydrogeologic Setting

### Geology

- the surrounding area is underlain by beach deposits of sand and gravel from Lake Iroquois

### Regional Drainage

- the site is about 1.5 km from Lake Ontario and there are no watercourses in the area
- drainage appears to be excellent due to the presence of the permeable sand and gravel deposits

## Disposal Site Detail

### Fill Characteristics

- the waste material at this site was disposed of in a worked-out sand and gravel pit
- the original pit was bounded by Winston Dr, Blantyre Ave, Victoria Park Ave, and Linton Ave.
- Swanick Ave and about 8 homes on it were constructed on the fill
- observation of a foundation excavation revealed only ash and metal wastes
- the depth of fill is estimated to be about 2 m, and the house foundations on Swanick Ave are likely set on original ground

### Topography and Drainage

- the entire fill area is depressed about 2 m below original grade
- the fill is virtually flat
- drainage on the site does not appear to be a problem because of the permeable fill and underlying gravel



## Identified Impact

### Settlement & Erosion

- land settlement is the most significant impact at this site
- ground levels around many houses have settled more than 25 cm and service connections to homes have been severed due to settlement
- erosion is not a problem at this site

### Vegetation Stress

- there was no apparent vegetation stress in the school yard or on any of the residential properties

### Leachate

- no evidence of leachate

### Methane Gas

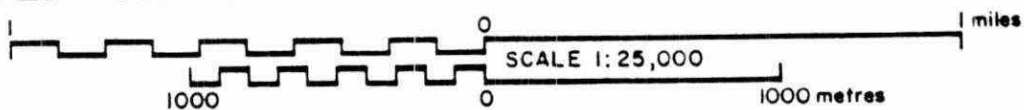
- no methane gas was detected in the site or in any of the monitored buildings

## Potential Impacts

- gas migration into the homes or school in the area is not anticipated due to the age of the site (40-45 years), the absence of any methane readings, and the lack of any evidence of vegetation stress due to landfill gas
- settlement may continue to be a problem; however it is expected that 75 to 90% of the total settlement has already occurred

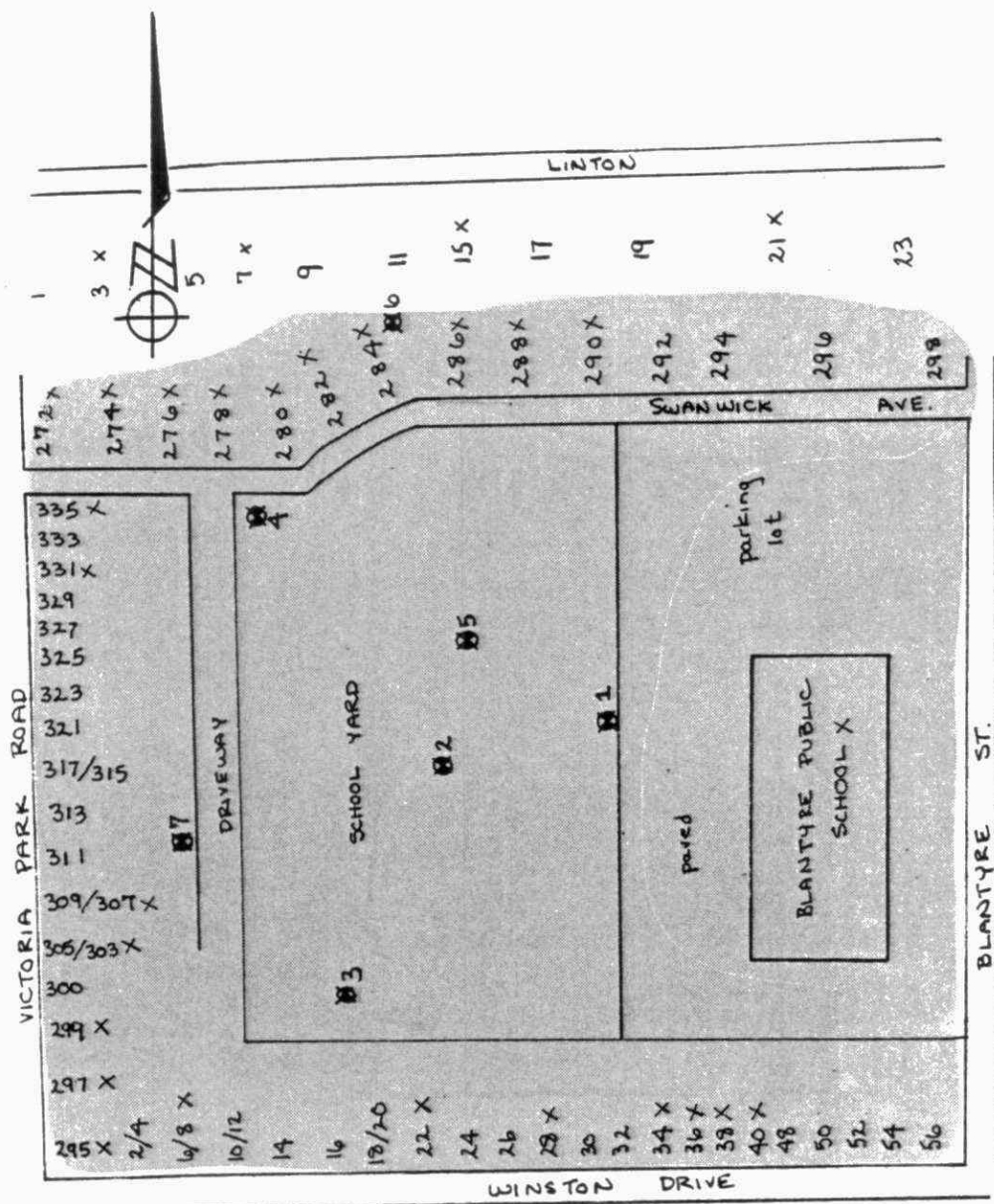
## Recommendations

1. The disposal site and future uses should be permanently identified as follows:
  - (a) identify the "limits of fill" on the Official Plan,
  - (b) amend the Zoning By-law for the disposal site to restrict future uses.
  - (c) register a Notice on the title of the property with the Land Registrar which identifies the disposal site, the potential impacts and the restricted future uses,
  - (d) prohibit future residential development on the disposal site and a limited buffer zone around the site.
2. No further studies are required.



SITE NO. 3019  
SWANWICK AVE. Scarborough

Morrison Beatty Limited  
Gore & Storrie Limited



LEGEND

WASTE DISPOSAL SITE

WATER SAMPLE LOCATIONS

GAS SAMPLE LOCATIONS

- in field

- in buildings

①

⊗<sup>2</sup>

x<sup>2</sup>

NOT TO SCALE

SITE NO. 3019  
SWANWICK AVE. Scarborough

Morrison Beatty Limited  
Gore & Storrie Limited





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Environment

# OLD WASTE DISPOSAL SITE STUDY

SITE NO.

3019



Morrison Beatty Limited  
Gore & Storrie Limited

DISPOSAL  
AREA



SCALE 1:6670







FORM I  
(Site Identification Study)

MOE REGION CENTRAL REGION DATE Sept. 25, 1980 SITE IDENTIFICATION CODE 3019  
SITE Blantyre School, Swanwick Ave and Victoria Park Rd. Scarborough  
(Lot, concession #, or UTM coordinates, name, address)



SITE INSPECTION

MOE REGION \_\_\_\_\_ DATE \_\_\_\_\_ SITE IDENTIFICATION CODE 3019 - Page 2

SITE Blantyre School cont'd  
(Lot, concession #, or UTM coordinates, name, address)

ON-SITE TESTS

I Leachate

A. WATER BODIES WITHIN 100 METRES

Parameter

Results

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

B. WELLS WITHIN 100 METRES

Parameter

Results

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

Any significant odour problems Yes \_\_\_\_\_ No \_\_\_\_\_ Comments \_\_\_\_\_

LAB TESTS (2 LITRE SAMPLES)

Required, Yes \_\_\_\_\_ No \_\_\_\_\_ If Yes, complete Form II, Lab Analysis. If No, go to Part II, Gas.

II Gas

C. ON-SITE

D. BUILDINGS

Test

Holes

Results

Test

Holes

Results

Name/Address

Results

Name/Address

Results

|    |       |     |       |                                            |        |                                        |       |
|----|-------|-----|-------|--------------------------------------------|--------|----------------------------------------|-------|
| #1 | _____ | #6  | _____ | 1. 329 Victoria Park Rd (no English)       | _____  | 6. 313 Victoria Park Rd (no one home)  | _____ |
| #2 | _____ | #7  | _____ | 2. 327, 325, 323, 321 Victoria             | _____  | 7. 311 Victoria Park Road (vacant)     | _____ |
| #3 | _____ | #8  | _____ | 3. _____ Park (no one home)                | _____  | 8. 309, 307 Victoria Park Rd           | 0%    |
| #4 | _____ | #9  | _____ | 4. 321 Victoria Park Rd.                   | vacant | 9. 305, 303 Victoria Park Rd           | 0%    |
| #5 | _____ | #10 | _____ | 5. 317, 315 Victoria Park Rd (no one home) | _____  | 10. 300 Victoria Park Rd (no one home) | _____ |

III General Comments (vegetation, leachate springs, depth, etc.) \_\_\_\_\_

(Detail all test point locations in a sketch on reverse side)

Form completed by: Nancy Rennie



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Environment  
Ontario

(To be completed in duplicate, 1 copy to MOE Regional office, 1 copy to MOE Head office)

FORM I  
(Site Identification Study)

### SITE INSPECTION

MOE REGION \_\_\_\_\_ DATE \_\_\_\_\_ SITE IDENTIFICATION CODE \_\_\_\_\_ 3019 - Page 3

SITE Blantyre School cont'd  
(Lot, concession #, or UTM coordinates, name, address)

#### ON-SITE TESTS

#### I Leachate

##### A. WATER BODIES WITHIN 100 METRES

###### Parameter

###### Results

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

##### B. WELLS WITHIN 100 METRES

###### Parameter

###### Results

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

Any significant odour problems Yes \_\_\_\_\_ No \_\_\_\_\_ Comments \_\_\_\_\_

#### LAB TESTS (2 LITRE SAMPLES)

Required, Yes \_\_\_\_\_ No \_\_\_\_\_ If Yes, complete Form II, Lab Analysis. If No, go to Part II, Gas.

#### II Gas

##### C. ON-SITE

##### D. BUILDINGS

###### Test

Holes Results

###### Test

Holes Results

Name/Address

Results

Name/Address

Results

|    |  |     |  |                                    |    |                                     |    |
|----|--|-----|--|------------------------------------|----|-------------------------------------|----|
| #1 |  | #6  |  | 1. 299,297 Victoria Park Rd        | 0% | 6. 14 Winston Ave (no one home)     |    |
| #2 |  | #7  |  | 2. 295 Victoria Park Rd            | 0% | 7. 16 Winston Ave (no one home)     |    |
| #3 |  | #8  |  | 3. 2, 4, Winston Ave (no one home) |    | 8. 18,20 Winston Ave (no time)      |    |
| #4 |  | #9  |  | 4. 6, 8, Winston Ave               | 0% | 9. 22 Winston Ave                   | 0% |
| #5 |  | #10 |  | 5. 10,12 Winston Ave (no one home) |    | 10. 24,26 Winston Ave (no one home) |    |

III General Comments (vegetation, leachate springs, depth, etc.) \_\_\_\_\_

(Detail all test point locations in a sketch on reverse side)

Form completed by: Nancy Rennie



SITE INSPECTION

MOE REGION \_\_\_\_\_ DATE \_\_\_\_\_ SITE IDENTIFICATION CODE \_\_\_\_\_ 3019 - Page 4

SITE Blantyre School cont'd  
(Lot, concession #, or UTM coordinates, name, address)

ON-SITE TESTS

I Leachate

A. WATER BODIES WITHIN 100 METRES

Parameter

Results

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

B. WELLS WITHIN 100 METRES

Parameter

Results

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

Any significant odour problems Yes \_\_\_\_\_ No \_\_\_\_\_ Comments \_\_\_\_\_

LAB TESTS (2 LITRE SAMPLES)

Required, Yes \_\_\_\_\_ No \_\_\_\_\_ If Yes, complete Form II, Lab Analysis. If No, go to Part II, Gas.

II Gas

C. ON-SITE

D. BUILDINGS

Test

Holes Results

Test

Holes Results

Name/Address

Results

Name/Address

Results

|    |       |     |       |                                 |       |                                  |       |
|----|-------|-----|-------|---------------------------------|-------|----------------------------------|-------|
| #1 | _____ | #6  | _____ | 1. 28 Winston Ave.              | 0%    | 6.40 Winston Ave                 | 0%    |
| #2 | _____ | #7  | _____ | 2. 30 Winston Ave (no one home) | _____ | 7.48 Winston Ave (no one home)   | _____ |
| #3 | _____ | #8  | _____ | 3. 34 Winston Ave               | 0%    | 8.50 Winston Ave (no one home)   | _____ |
| #4 | _____ | #9  | _____ | 4. 36 Winston Ave               | 0%    | 9.52 Winston Ave (no one home)   | _____ |
| #5 | _____ | #10 | _____ | 5. 38 Winston Ave               | 0%    | 10. 54 Winston Ave (no one home) | _____ |
|    |       |     |       |                                 |       | 56 Winston Ave (no one home)     | _____ |

III General Comments (vegetation, leachate springs, depth, etc.) \_\_\_\_\_

(Detail all test point locations in a sketch on reverse side)

Form completed by: Nancy Rennie



Ministry  
of the  
Environment  
Ontario

(To be completed in duplicate, 1 copy to MOE Regional office, 1 copy to MOE Head office)

FORM I  
(Site Identification Study)

### SITE INSPECTION

MOE REGION \_\_\_\_\_ DATE \_\_\_\_\_ SITE IDENTIFICATION CODE 3019 - Page 5

SITE Victoria Park cont'd  
(Lot, concession #, or UTM coordinates, name, address)

#### ON-SITE TESTS

#### I Leachate

##### A. WATER BODIES WITHIN 100 METRES

###### Parameter

###### Results

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

##### B. WELLS WITHIN 100 METRES

###### Parameter

###### Results

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

Any significant odour problems Yes \_\_\_\_\_ No \_\_\_\_\_ Comments \_\_\_\_\_

#### LAB TESTS (2 LITRE SAMPLES)

Required, Yes \_\_\_\_\_ No \_\_\_\_\_ If Yes, complete Form II, Lab Analysis. If No, go to Part II, Gas.

#### II Gas

##### C. ON-SITE

##### D. BUILDINGS

###### Test

Holes Results

###### Test

Holes Results

Name/Address

Results

Name/Address

Results

- #1 \_\_\_\_\_
- #2 \_\_\_\_\_
- #3 \_\_\_\_\_
- #4 \_\_\_\_\_
- #5 \_\_\_\_\_
- #6 \_\_\_\_\_
- #7 \_\_\_\_\_
- #8 \_\_\_\_\_
- #9 \_\_\_\_\_
- #10 \_\_\_\_\_

- 1. 1 Linton Ave. (no one home)
- 2. 3 Linton Ave. 0%
- 3. 5 Linton Ave. (no admittance)
- 4. 7 Linton Ave. 0%
- 5. 9 Linton Ave. (no one home)

- 6. 11 Linton Ave. (no one home)
- 7. 15 Linton Ave. 0%
- 8. 17 Linton Ave. (no one home)
- 9. 19 Linton Ave. (no one home)
- 10. 21 Linton Ave. 0%
- 11. 23 Linton Ave. (no one home)

III General Comments (vegetation, leachate springs, depth, etc.) \_\_\_\_\_

(Detail all test point locations in a sketch on reverse side)

Form completed by: Nancy Rennie





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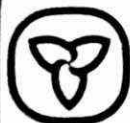
# OLD WASTE DISPOSAL SITE STUDY

Site Number... 4011

Location..... MORNELLE COURT & MORNINGSIDE  
SCARBOROUGH

Morrison Beatty Limited

Gore & Storrie Limited



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# OLD WASTE DISPOSAL SITE STUDY

SITE NO. 4011  
LOCATION Morning-  
side & Ellesmere  
Scarborough

## Background

### Waste Disposal Practices

- Operated by the Borough of Scarborough as a domestic municipal solid waste disposal site from 1959 to 1962.
- The cover material consists of asphalt material, bricks and cement chunks in the soil jutting out of the ground.
- The area of the site is roughly 5 hectares.
- Information sources included Messrs. Walton and Polson, Operations Department, Borough of Scarborough.

### Land Uses

**Original** - A worked out gravel pit.

### Present Development

**On - site**

- Vacant, undeveloped field for the most part.
- Gulf service station.
- Medical building, parking lot.
- Mornelle Rd. and associated sidewalks.
- Utility services.

**Abutting**

North - Highrise apartment building.  
East - Morningside Avenue; two highrise apartments.  
South - Highland Creek Park; Ellesmere Avenue.  
West - Vacant area, full grown trees and bush.

### Present Site Owner

- Privately owned by highrise building developers, medical building and Gulf service station operators.
- Borough of Scarborough.

Morrison Beatty Limited | Gore & Storrie Limited

## Hydrogeologic Setting

### Geology

- the surficial deposits in the area comprise Lake Iroquois sands

### Regional Drainage

- the site abuts a tributary stream of Highland Creek
- most of the development on the north and east side of the site is serviced by storm sewers

## Disposal Site Detail

### Fill Characteristics

- the landfill site is located in the vicinity of old gravel pits; the fill itself has been deposited in ravines that were below the grade of Ellesmere Ave.
- the waste is up to 12 m in depth
- a 20 m wide buffer strip of "clean" fill was placed along the south edge of the site (ie - along Ellesmere Ave.)
- topsoil has not been applied to the site west of Mornelle Court; as a result the vegetative cover is poor
- a good quality grass cover is maintained east of Mornelle Court

### Topography and Drainage

- the surface of the landfill slopes gently southward
- a relatively steep embankment at the southwest corner of the site blends in with an existing natural embankment
- drainage at the site is good

M-141279

## Identified Impact

### Settlement & Erosion

- settlement depressions occur in all paved areas on the site and in the large vacant area west of Mornelle Court
- erosion was evident along the steep slopes on the western limits of the site

### Vegetation Stress

- patches of decayed vegetation occur over the extent of the site; however greatest stress was evident west of Mornelle Court

### Leachate

- leachate seepage occurs at the toe of the landfill in the southwest corner

### Methane Gas

- permanent probes from a study done in 1979 by Morrison Beatty Limited, were checked for methane; these produced readings of 0%, 18% and 48%
- barholes resulted in readings of up to 85% methane in the landfill site
- no methane gas was detected in any of the monitored buildings

## Potential Impacts

- gas migration into the service station on Ellesmere Road and the apartment buildings which abut the site to the north via the permeable sand deposit
- the medical building appears to be adequately designed to prevent an explosion hazard, but the high methane in the landfill beneath the building results in a greater hazard risk

## Recommendations

1. The disposal site and future uses should be permanently identified as follows:
  - (a) identify the "limits of fill" on the Official Plan,
  - (b) amend the Zoning By-law for the disposal site to restrict future uses,
  - (c) register a Notice on the title of the property with the Land Registrar which identifies the disposal site, the potential impacts and the restricted future uses,
  - (d) prohibit future residential development on the disposal site and a limited buffer zone around this site.
2. The Part II study should be carried out to assess the potential impacts. The study should include the following:
  - i) installation of multi-depth gas probes as set out in the Table below,
  - ii) monitoring of gas probes for methane concentration and ground and atmospheric air pressure every two weeks from November to May, and
  - iii) monitoring of methane gas in abutting buildings if the concentration in the ground outside the foundation exceeds 5% by volume.
3. The results of the monitoring program should be assessed to determine:
  - i) if monitoring can be terminated, in the event of no apparent hazard,
  - ii) if monitoring should be continued, in the event of an identified potential hazard,
  - iii) if permanent gas controls should be installed, in the event of a hazardous impact,
  - iv) minimum buffer zones for future development around the site.
4. The construction history of on-site and near-site buildings should be reviewed. The following should be examined:
  - i) soil investigation reports,
  - ii) reports of waste materials encountered during construction,
  - iii) plans of foundation design,
  - iv) details of special gas control systems, if any, and
  - v) details of gas monitoring program, if any.

| <u>LOCATION</u>                                                                                                                      | <u>ESTIMATED<br/>NUMBER</u> |
|--------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| - around the perimeter of the service station on Ellesmere Road and between the fill and the apartment buildings which abut the site | 8                           |
| - around the perimeter of the medical building                                                                                       | 4                           |

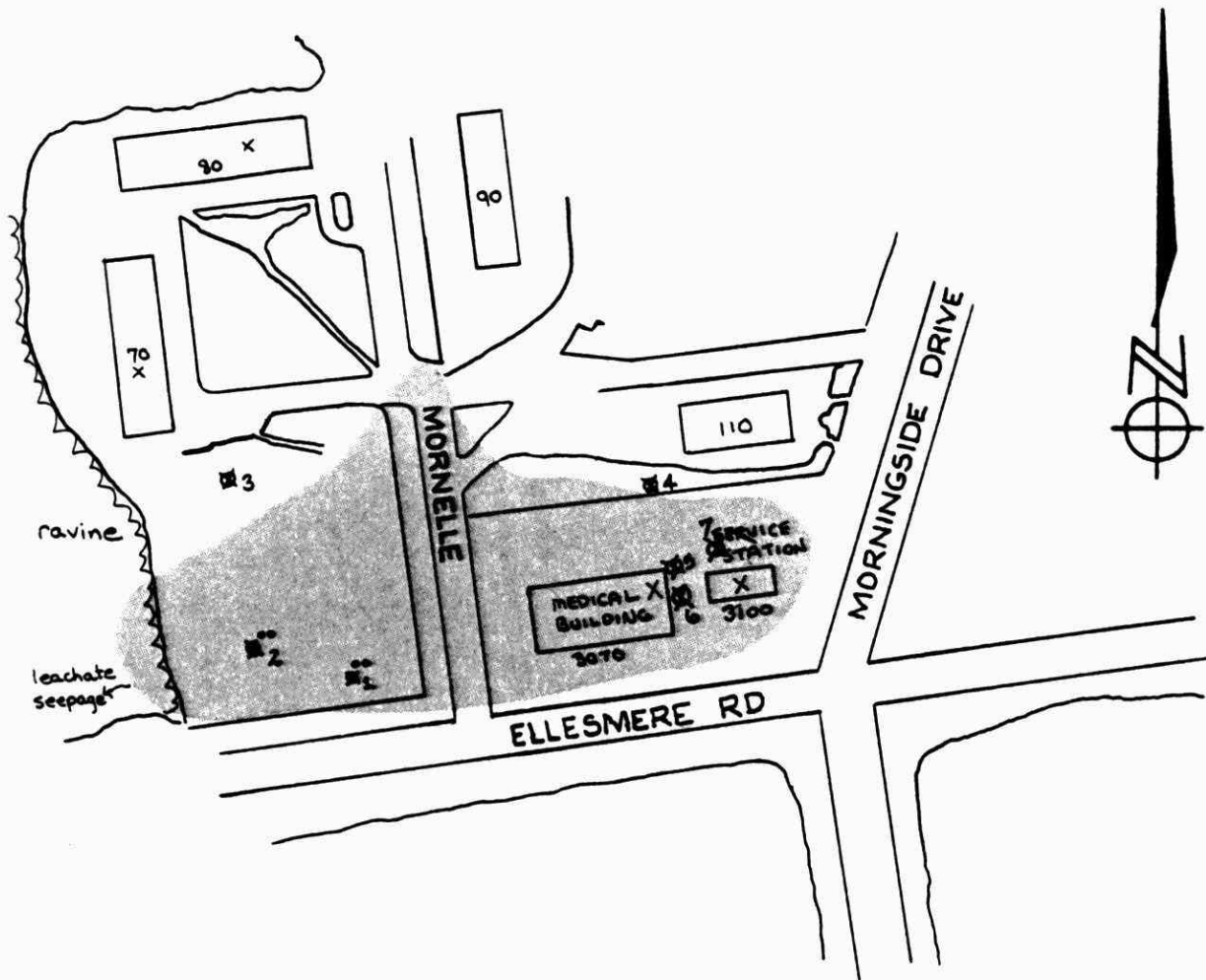




SITE NO. 4011/Scarborough  
401 & MORNINGSIDE

Morrison Beatty Limited  
Gore & Storrie Limited

M-221080



#### LEGEND

- |                        |                                                                                       |
|------------------------|---------------------------------------------------------------------------------------|
| WASTE DISPOSAL SITE    |  |
| WATER SAMPLE LOCATIONS | ①                                                                                     |
| GAS SAMPLE LOCATIONS   |                                                                                       |
| - in field             | ⊗ <sup>2</sup>                                                                        |
| - in buildings         | x <sup>2</sup>                                                                        |

NOT TO SCALE

SITE NO. 4011/Scarborough  
401 & MORNINGSIDE

Morrison Beatty Limited  
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# OLD WASTE DISPOSAL SITE STUDY

SITE NO.

4011



Morrison Beatty Limited  
Gore & Storrie Limited

DISPOSAL  
AREA



SCALE 1:6670





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(To be completed in duplicate, 1 copy to MOE Regional office, 1 copy to MOE Head office)

FORM I  
(Site Identification Study)

### SITE INSPECTION

MOE REGION CENTRAL REGION DATE Sept. 26, 1980 SITE IDENTIFICATION CODE 4011

SITE Morningside and Ellesmere  
(Lot, concession #, or UTM coordinates, name, address)

#### ON-SITE TESTS

##### I Leachate

###### A. WATER BODIES WITHIN 100 METRES

###### Parameter

###### Results

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
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|   |   |   |   |   |   |   |   |   |    |

###### B. WELLS WITHIN 100 METRES

###### Parameter

###### Results

- 1) Chlorides
- 2) Dissolved solids
- 3) Iron
- 4) Alkalinity
- 5) Conductivity

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |
|   |   |   |   |   |   |   |   |   |    |

Any significant odour problems Yes \_\_\_\_\_ No X Comments \_\_\_\_\_

#### LAB TESTS (2 LITRE SAMPLES)

Required, Yes \_\_\_\_\_ No X If Yes, complete Form II, Lab Analysis. If No, go to Part II, Gas.

##### II Gas

###### C. ON-SITE

###### Test

###### Holes

###### Results

|    |     |
|----|-----|
| #1 | 25% |
| #2 | 25% |
| #3 | 0%  |
| #4 | 0%  |
| #5 | 38% |

###### Test

###### Holes

###### Results

|     |     |
|-----|-----|
| #6  | 85% |
| #7  | 65% |
| #8  |     |
| #9  |     |
| #10 |     |

###### D. BUILDINGS

###### Name/Address

###### Results

|                                |    |
|--------------------------------|----|
| 1.70 Mornelle Court (apt)      | 0% |
| 2.80 Mornelle Court (apt)      | 0% |
| 3.110 Mornelle Court (no supt) |    |
| 4.3070 Ellesmere               | 0% |
| 5.3100 Ellesmere Gulf Oil      | 0% |

###### Name/Address

###### Results

|     |  |
|-----|--|
| 6.  |  |
| 7.  |  |
| 8.  |  |
| 9.  |  |
| 10. |  |

III General Comments (vegetation, leachate springs, depth, etc.) Station

(Detail all test point locations in a sketch on reverse side)

Form completed by: Nancy Rennie

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vol 1

Old waste disposal site studies :  
central region.

76890